

ABNORMAL TEST RESULT

OF MODEL SCHA3300F-48

1. Did Cheese Cloth or Paper Glow?

No.

2. Did Ground Fuse Open?

No.

3. Dielectric breakdown?

No.

4. Other Results?

See the following pages .

(FMEA : 2/118 ~ 110/118)

(Abnormal Test Result: 111/118 ~ 118/118)

There was no emission of flame, molten metal, ignition of cheesecloth, dielectric breakdown, opening of the ground fuse, other indication of a shock or fire hazard.

F M E A

Component	Mode	Comment	Output Voltage (V)
C101	Open	Normal operation.	48V
	Short	F101, F102 opened, No hazard.	0V
C102	Open	Normal operation.	48V
	Short	F101, F102 opened, No hazard.	0V
C103	Open	Normal operation.	48V
	Short	F101, F102 opened, No hazard.	0V
C109	Open	Normal operation.	48V
	Short	R120~123 opened, No hazard.	0V
C110	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C111	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C112	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C113	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C114	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C115	Open	Normal operation.	48V
	Short	R120~123 opened, No hazard.	0V
C116	Open	Normal operation.	48V
	Short	R120~123 opened, No hazard.	0V
C117	Open	Normal operation.	48V
	Short	R120~123 opened, No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C118	Open	Normal operation.	48V
	Short	F101, F102 opened, No hazard.	0V
C119	Open	Normal operation.	48V
	Short	F101, F102 opened, No hazard.	0V
C120	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C121	Open	Normal operation.	48V
	Short	Normal operation.	48V
C122	Open	Normal operation.	48V
	Short	Normal operation.	48V
C124	Open	Normal operation.	48V
	Short	Normal operation.	48V
C125	Open	Normal operation.	48V
	Short	Normal operation.	48V
C131	Open	Normal operation.	48V
	Short	Normal operation.	48V
C132	Open	Normal operation.	48V
	Short	Normal operation.	48V
C134	Open	Normal operation.	48V
	Short	Normal operation.	48V
C135	Open	Normal operation.	48V
	Short	Normal operation.	48V
C136	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C137	Open	Normal operation.	48V
	Short	Normal operation.	48V
C138	Open	Normal operation.	48V
	Short	Normal operation.	48V
C141	Open	Normal operation.	48V
	Short	Normal operation.	48V
C142	Open	Normal operation.	48V
	Short	Normal operation.	48V
C143	Open	Normal operation.	48V
	Short	Normal operation.	48V
C144	Open	Normal operation.	48V
	Short	Normal operation.	48V
C145	Open	Normal operation.	48V
	Short	Normal operation.	48V
C146	Open	Normal operation.	48V
	Short	Normal operation.	48V
C147	Open	Normal operation.	48V
	Short	Normal operation.	48V
C148	Open	Normal operation.	48V
	Short	Normal operation.	48V
C149	Open	Normal operation.	48V
	Short	Normal operation.	48V
C150	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C151	Open	Normal operation.	48V
	Short	Normal operation.	48V
C152	Open	Normal operation.	48V
	Short	Normal operation.	48V
C153	Open	Normal operation.	48V
	Short	Normal operation.	48V
C154	Open	Normal operation.	48V
	Short	Normal operation.	48V
C155	Open	Normal operation.	48V
	Short	Normal operation.	48V
C158	Open	Normal operation.	48V
	Short	Normal operation.	48V
C159	Open	Normal operation.	48V
	Short	Normal operation.	48V
C160	Open	Normal operation.	48V
	Short	Normal operation.	48V
C161	Open	Normal operation.	48V
	Short	Normal operation.	48V
C171	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C172	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C173	Open	Normal operation.	48V
	Short	See 111 Page.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C174	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C175	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C176	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C177	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C178	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C179	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C201	Open	No hazard.	0V
	Short	No hazard.	0V
C202	Open	Normal operation.	48V
	Short	R231 opened, No hazard.	0V
C203	Open	Normal operation.	48V
	Short	Normal operation.	48V
C204	Open	No hazard.	0V
	Short	No hazard.	0V
C205	Open	Normal operation.	48V
	Short	No hazard.	0V
C207	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C208	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C209	Open	Normal operation.	48V
	Short	No hazard.	0V
C210	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C211	Open	Normal operation.	48V
	Short	No hazard.	0V
C212	Open	Normal operation.	48V
	Short	R231 opened, No hazard.	0V
C215	Open	Normal operation.	48V
	Short	No hazard.	0V
C216	Open	Normal operation.	48V
	Short	Normal operation.	48V
C231	Open	No hazard.	0V
	Short	No hazard.	0V
C232	Open	Normal operation.	48V
	Short	R231 opened, No hazard.	0V
C233	Open	Normal operation.	48V
	Short	Normal operation.	48V
C234	Open	No hazard.	0V
	Short	No hazard.	0V
C235	Open	Normal operation.	48V
	Short	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C237	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C238	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C239	Open	Normal operation.	48V
	Short	No hazard.	0V
C240	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C241	Open	No hazard.	0V
	Short	No hazard.	0V
C242	Open	Normal operation.	48V
	Short	R231 opened, No hazard.	0V
C245	Open	Normal operation.	48V
	Short	No hazard.	0V
C246	Open	Normal operation.	48V
	Short	Normal operation.	48V
C261	Open	Normal operation.	48V
	Short	No hazard.	0V
C301	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C302	Open	Normal operation.	48V
	Short	Normal operation.	48V
C303	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C305	Open	Normal operation.	48V
	Short	Normal operation.	48V
C306	Open	Normal operation.	48V
	Short	Normal operation.	48V
C307	Open	Normal operation.	48V
	Short	Normal operation.	48V
C308	Open	Normal operation.	48V
	Short	Normal operation.	48V
C309	Open	Normal operation.	48V
	Short	Normal operation.	48V
C310	Open	Normal operation.	48V
	Short	Normal operation.	48V
C311	Open	Normal operation.	48V
	Short	Normal operation.	48V
C312	Open	Normal operation.	48V
	Short	Normal operation.	48V
C313	Open	Normal operation.	48V
	Short	Normal operation.	48V
C316	Open	Normal operation.	48V
	Short	Normal operation.	48V
C319	Open	Normal operation.	48V
	Short	Normal operation.	48V
C322	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C325	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C326	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C327	Open	Normal operation.	48V
	Short	Normal operation.	48V
C328	Open	Normal operation.	48V
	Short	Normal operation.	48V
C331	Open	Normal operation.	48V
	Short	No hazard.	0V
C333	Open	Normal operation.	48V
	Short	Normal operation.	48V
C334	Open	Normal operation.	48V
	Short	Normal operation.	48V
C335	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C336	Open	Normal operation.	48V
	Short	No hazard.	0V
C337	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C338	Open	DD_INV drive circuit failure, No hazard.	0V
	Short	No hazard.	0V
C339	Open	Normal operation.	48V
	Short	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C340	Open	Normal operation.	48V
	Short	No hazard.	0V
C341	Open	Normal operation.	48V
	Short	No hazard.	0V
C342	Open	Normal operation.	48V
	Short	No hazard.	0V
C343	Open	Normal operation.	48V
	Short	No hazard.	0V
C346	Open	Normal operation.	48V
	Short	Normal operation.	48V
C347	Open	Normal operation.	48V
	Short	Normal operation.	48V
C348	Open	Normal operation.	48V
	Short	Normal operation.	48V
C349	Open	Normal operation.	48V
	Short	Normal operation.	48V
C350	Open	Normal operation.	48V
	Short	No hazard.	0V
C351	Open	Normal operation.	48V
	Short	Normal operation.	48V
C352	Open	Normal operation.	48V
	Short	Normal operation.	48V
C353	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C354	Open	Normal operation.	48V
	Short	Normal operation.	48V
C355	Open	Normal operation.	48V
	Short	Normal operation.	48V
C356	Open	Normal operation.	48V
	Short	Normal operation.	48V
C357	Open	Normal operation.	48V
	Short	Normal operation.	48V
C358	Open	Normal operation.	48V
	Short	Normal operation.	48V
C359	Open	Normal operation.	48V
	Short	Normal operation.	48V
C360	Open	Normal operation.	48V
	Short	Normal operation.	48V
C361	Open	Normal operation.	48V
	Short	Normal operation.	48V
C362	Open	Normal operation.	48V
	Short	Normal operation.	48V
C363	Open	Normal operation.	48V
	Short	Normal operation.	48V
C364	Open	Normal operation.	48V
	Short	Normal operation.	48V
C365	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C366	Open	Normal operation.	48V
	Short	Normal operation.	48V
C401	Open	Normal operation.	48V
	Short	R231 opened, No hazard.	0V
C402	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C405	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
C406	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
C407	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C408	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C501	Open	Normal operation.	48V
	Short	No hazard.	0V
C502	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C506	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
C507	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C508	Open	No hazard.	0V
	Short	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C530	Open	Normal operation.	48V
	Short	No hazard.	0V
C531	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C533	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C535	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C537	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C538	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C539	Open	Normal operation.	48V
	Short	No hazard.	0V
C541	Open	Normal operation.	48V
	Short	No hazard.	0V
C601	Open	Normal operation.	48V
	Short	Normal operation.	48V
C602	Open	Normal operation.	48V
	Short	Normal operation.	48V
C603	Open	Normal operation.	48V
	Short	Normal operation.	48V
C604	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C605	Open	Normal operation.	48V
	Short	Normal operation.	48V
C606	Open	Normal operation.	48V
	Short	Normal operation.	48V
C607	Open	Normal operation.	48V
	Short	Normal operation.	48V
C608	Open	Normal operation.	48V
	Short	Normal operation.	48V
C611	Open	Normal operation.	48V
	Short	Normal operation.	48V
C612	Open	Normal operation.	48V
	Short	Normal operation.	48V
C613	Open	Normal operation.	48V
	Short	Normal operation.	48V
C614	Open	Normal operation.	48V
	Short	Normal operation.	48V
C615	Open	Normal operation.	48V
	Short	Normal operation.	48V
C616	Open	Normal operation.	48V
	Short	Normal operation.	48V
C617	Open	Normal operation.	48V
	Short	Normal operation.	48V
C618	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C632	Open	Normal operation.	48V
	Short	No hazard.	0V
C634	Open	Normal operation.	48V
	Short	No hazard.	0V
C635	Open	Normal operation.	48V
	Short	No hazard.	0V
C636	Open	Normal operation.	48V
	Short	No hazard.	0V
C637	Open	Normal operation.	48V
	Short	No hazard.	0V
C638	Open	Normal operation.	48V
	Short	No hazard.	0V
C639	Open	Normal operation.	48V
	Short	No hazard.	0V
C640	Open	Normal operation.	48V
	Short	No hazard.	0V
C641	Open	Normal operation.	48V
	Short	No hazard.	0V
C642	Open	Normal operation.	48V
	Short	No hazard.	0V
C643	Open	Normal operation.	48V
	Short	No hazard.	0V
C651	Open	Normal operation.	48V
	Short	See 111 Page.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C652	Open	Normal operation.	48V
	Short	Normal operation.	48V
C653	Open	Normal operation.	48V
	Short	Normal operation.	48V
C654	Open	Normal operation.	48V
	Short	Normal operation.	48V
C655	Open	Normal operation.	48V
	Short	Normal operation.	48V
C661	Open	Normal operation.	48V
	Short	Normal operation.	48V
C662	Open	Normal operation.	48V
	Short	Normal operation.	48V
C663	Open	Normal operation.	48V
	Short	Normal operation.	48V
C664	Open	Normal operation.	48V
	Short	Normal operation.	48V
C671	Open	Normal operation.	48V
	Short	Normal operation.	48V
C672	Open	Normal operation.	48V
	Short	Normal operation.	48V
C673	Open	Normal operation.	48V
	Short	Normal operation.	48V
C674	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C675	Open	Normal operation.	48V
	Short	Normal operation.	48V
C676	Open	Normal operation.	48V
	Short	Normal operation.	48V
C677	Open	Normal operation.	48V
	Short	Normal operation.	48V
C678	Open	Normal operation.	48V
	Short	Normal operation.	48V
C701	Open	No hazard.	0V
	Short	Normal operation.	48V
C702	Open	No hazard.	0V
	Short	Normal operation.	48V
C703	Open	Normal operation.	48V
	Short	Normal operation.	48V
C704	Open	Normal operation.	48V
	Short	No hazard.	0V
C705	Open	Normal operation.	48V
	Short	No hazard.	0V
C706	Open	Normal operation.	48V
	Short	No hazard.	0V
C707	Open	Normal operation.	48V
	Short	No hazard.	0V
C708	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C711	Open	Normal operation.	48V
	Short	No hazard.	0V
C721	Open	Normal operation.	48V
	Short	No hazard.	0V
C722	Open	Normal operation.	48V
	Short	No hazard.	0V
C723	Open	Normal operation.	48V
	Short	No hazard.	0V
C731	Open	Normal operation.	48V
	Short	No hazard.	0V
C732	Open	Normal operation.	48V
	Short	No hazard.	0V
C733	Open	Normal operation.	48V
	Short	No hazard.	0V
C741	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C742	Open	Normal operation.	48V
	Short	Normal operation.	48V
C743	Open	Normal operation.	48V
	Short	Normal operation.	48V
C744	Open	Normal operation.	48V
	Short	Normal operation.	48V
C745	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C746	Open	Normal operation.	48V
	Short	Normal operation.	48V
C747	Open	Normal operation.	48V
	Short	Normal operation.	48V
C748	Open	Normal operation.	48V
	Short	Normal operation.	48V
C749	Open	Normal operation.	48V
	Short	Normal operation.	48V
C750	Open	Normal operation.	48V
	Short	Normal operation.	48V
C751	Open	Normal operation.	48V
	Short	No hazard.	0V
C801	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C802	Open	Normal operation.	48V
	Short	See 111 Page.	0V
C803	Open	Normal operation.	48V
	Short	No hazard.	0V
C804	Open	Normal operation.	48V
	Short	Normal operation.	48V
C805	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C806	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C821	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C831	Open	Normal operation.	48V
	Short	R711 opened, No hazard.	0V
C832	Open	Normal operation.	48V
	Short	R711 opened, No hazard.	0V
C835	Open	Normal operation.	48V
	Short	No hazard.	0V
C836	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C837	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C839	Open	Normal operation.	48V
	Short	No hazard.	0V
C841	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C851	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C885	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C886	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C901	Open	Normal operation.	48V
	Short	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
C902	Open	Normal operation.	48V
	Short	No hazard.	0V
C903	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C904	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
C905	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C906	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
C907	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C908	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
C910	Open	Normal operation.	48V
	Short	No hazard.	0V
C911	Open	Normal operation.	48V
	Short	No hazard.	0V
C912	Open	Normal operation.	48V
	Short	No hazard.	0V
C915	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C921	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
C922	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C931	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C932	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C933	Open	Normal operation.	48V
	Short	No hazard.	0V
C934	Open	Normal operation.	48V
	Short	No hazard.	0V
C935	Open	Normal operation.	48V
	Short	No hazard.	0V
C941	Open	Normal operation.	48V
	Short	No hazard.	0V
C951	Open	Normal operation.	48V
	Short	No hazard.	0V
C961	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C962	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
C971	Open	Normal operation.	48V
	Short	No hazard.	0V
C972	Open	Normal operation.	48V
	Short	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
C973	Open		Normal operation.	48V
	Short		No hazard.	0V
C991	Open		Normal operation.	48V
	Short		No hazard. Function failure.	48V
CN1	Open	1	Output voltage regulation within 1V. No hazard.	regulation within 1V
		2	Output voltage regulation within 1V. No hazard.	regulation within 1V
		3	No hazard. Function failure.	48V
		4	Normal operation.	48V
		5	No hazard. Function failure.	48V
		6	Output voltage regulation within 1V. No hazard.	regulation within 1V
		9	No hazard.	0V
		10	No hazard.	0V
	Short	1-2	Normal operation.	48V
		1-3	No hazard. Function failure.	48V
		2-4	No hazard.	0V
		3-4	No hazard. Function failure.	48V
		3-5	No hazard.	0V
		4-6	No hazard.	0V
		5-6	No hazard.	0V
		9-10	No hazard. Function failure.	48V
CN2	Open	1	Output voltage regulation within 1V. No hazard.	regulation within 1V
		2	Output voltage regulation within 1V. No hazard.	regulation within 1V
		3	No hazard. Function failure.	48V
		4	Normal operation.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
CN2	Open	5	No hazard. Function failure.	48V
		6	Output voltage regulation within 1V. No hazard.	regulation within 1V
		9	No hazard.	0V
		10	No hazard.	0V
	Short	1-2	Normal operation.	48V
		1-3	No hazard. Function failure.	48V
		2-4	No hazard.	0V
		3-4	No hazard. Function failure.	48V
		3-5	No hazard.	0V
		4-6	No hazard.	0V
		5-6	No hazard.	0V
		9-10	No hazard. Function failure.	48V
CN3	Open	1	No hazard.	0V
		2	Normal operation.	48V
		5	No hazard.	0V
		6	Normal operation.	48V
		9	No hazard.	0V
		10	No hazard.	0V
		11	No hazard.	0V
		12	No hazard.	0V
	Short	1-2	No hazard.	0V
		5-6	No hazard.	0V
		9-10	No hazard. Function failure.	48V
		9-11	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
CN3	Short	10-12	No hazard.	0V
		11-12	No hazard. Function failure.	48V
CN501	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard. Function failure.	48V
		4	No hazard.	0V
		5	No hazard.	0V
		6	Normal operation.	48V
		7	No hazard. Function failure.	48V
		8	Normal operation.	48V
	Short	1-2	Normal operation.	48V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard.	0V
		4-5	No hazard.	0V
		5-6	No hazard.	0V
		6-7	IC530 shorted, No hazard.	0V
		7-8	Normal operation.	48V
CN508	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
CN509	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
CN511	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
CN511	Open	4	No hazard. Function failure.	48V
		5	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
		4-5	No hazard. Function failure.	48V
CN831	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		4	No hazard. Function failure.	48V
		5	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
		4-5	No hazard. Function failure.	48V
CN833	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
CN834	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
D101	Open		No hazard. Function failure.	48V
	Short		Normal operation.	48V
D102	Open		No hazard. Function failure.	48V
	Short		Normal operation.	48V
D104	Open		No hazard. Function failure.	48V

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Component	Mode	Comment	Output Voltage (V)
D104	Short	No hazard. Function failure.	48V
D105	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D106	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D107	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D108	Open	TR121 shorted, No hazard.	0V
	Short	No hazard.	0V
D109	Open	TR123 shorted, No hazard.	0V
	Short	No hazard.	0V
D111	Open	Normal operation.	48V
	Short	Normal operation.	48V
D112	Open	Normal operation.	48V
	Short	Normal operation.	48V
D113	Open	Normal operation.	48V
	Short	Normal operation.	48V
D114	Open	Normal operation.	48V
	Short	Normal operation.	48V
D115	Open	Normal operation.	48V
	Short	Normal operation.	48V
D116	Open	Normal operation.	48V
	Short	Normal operation.	48V
D117	Open	Normal operation.	48V

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Component	Mode	Comment	Output Voltage (V)
D117	Short	Normal operation.	48V
D118	Open	Normal operation.	48V
	Short	Normal operation.	48V
D119	Open	Normal operation.	48V
	Short	Normal operation.	48V
D120	Open	Normal operation.	48V
	Short	Normal operation.	48V
D121	Open	Normal operation.	48V
	Short	Normal operation.	48V
D131	Open	Normal operation.	48V
	Short	No hazard.	0V
D132	Open	Normal operation.	48V
	Short	No hazard.	0V
D201	Open	No hazard.	0V
	Short	Normal operation.	48V
D211	Open	No hazard.	0V
	Short	No hazard.	0V
D212	Open	Normal operation.	48V
	Short	No hazard.	0V
D213	Open	No hazard.	0V
	Short	No hazard.	0V
D214	Open	Normal operation.	48V
	Short	No hazard.	0V
D215	Open	Normal operation.	48V

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Component	Mode	Comment	Output Voltage (V)
D215	Short	No hazard.	0V
D221	Open	No hazard.	0V
	Short	No hazard.	0V
D222	Open	Normal operation.	48V
	Short	No hazard.	0V
D223	Open	No hazard.	0V
	Short	No hazard.	0V
D224	Open	Normal operation.	48V
	Short	No hazard.	0V
D225	Open	Normal operation.	48V
	Short	No hazard.	0V
D231	Open	No hazard.	0V
	Short	Normal operation.	48V
D261	Open	No hazard.	0V
	Short	Normal operation.	48V
D301	Open	No hazard.	0V
	Short	TR303, TR306 shorted, No hazard.	0V
D302	Open	No hazard.	0V
	Short	TR304, TR305 shorted, No hazard.	0V
D303	Open	No hazard.	0V
	Short	TR301, TR302 shorted, No hazard.	0V
D304	Open	TR303, TR306 shorted, No hazard.	0V
	Short	TR303, TR306 shorted, No hazard.	0V
D305	Open	TR304, TR305 shorted, No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
D305	Short	TR304, TR305 shorted, No hazard.	0V
D306	Open	TR301, TR302 shorted, No hazard.	0V
	Short	TR301, TR302 shorted, No hazard.	0V
D307	Open	No hazard.	0V
	Short	TR309, TR312 shorted, No hazard.	0V
D308	Open	No hazard.	0V
	Short	TR310, TR311 shorted, No hazard.	0V
D309	Open	No hazard.	0V
	Short	TR307, TR308 shorted, No hazard.	0V
D310	Open	TR309, TR312 shorted, No hazard.	0V
	Short	TR309, TR312 shorted, No hazard.	0V
D311	Open	TR310, TR311 shorted, No hazard.	0V
	Short	TR310, TR311 shorted, No hazard.	0V
D312	Open	TR307, TR308 shorted, No hazard.	0V
	Short	TR307, TR308 shorted, No hazard.	0V
D313	Open	Normal operation.	48V
	Short	Normal operation.	48V
D314	Open	Normal operation.	48V
	Short	Normal operation.	48V
D315	Open	Normal operation.	48V
	Short	Normal operation.	48V
D316	Open	Normal operation.	48V
	Short	Normal operation.	48V
D317	Open	Normal operation.	48V

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Component	Mode	Comment	Output Voltage (V)
D317	Short	Normal operation.	48V
D318	Open	Normal operation.	48V
	Short	Normal operation.	48V
D319	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D330	Open	No hazard.	0V
	Short	No hazard.	0V
D331	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D332	Open	Normal operation.	48V
	Short	No hazard.	0V
D334	Open	TR330 shorted, R340 opened,	0V
	Short	No hazard. Function failure.	48V
D335	Open	Normal operation.	48V
	Short	No hazard.	0V
D336	Open	Normal operation.	48V
	Short	No hazard. Function failure.	48V
D338	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D401	Open	No hazard. Function failure.	48V
	Short	IC402, IC403 failure, No hazard.	0V
D402	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D403	Open	No hazard. Function failure.	48V

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Component	Mode	Comment	Output Voltage (V)
D403	Short	No hazard. Function failure.	48V
D501	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D502	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D503	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D504	Open	No hazard. Function failure.	48V
	Short	Normal operation.	48V
D530	Open	No hazard.	0V
	Short	Normal operation.	48V
D532	Open	IC530 failure, No hazard.	0V
	Short	No hazard. Function failure.	48V
D534	Open	No hazard.	0V
	Short	Normal operation.	48V
D701	Open	No hazard.	0V
	Short	No hazard.	0V
D702	Open	No hazard.	0V
	Short	No hazard.	0V
D711	Open	No hazard.	0V
	Short	No hazard.	0V
D721	Open	No hazard.	0V
	Short	No hazard.	0V
D731	Open	No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
D731	Short	No hazard.	0V
D751	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D801	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D803	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D831	Open	No hazard. Function failure.	48V
	Short	IC840 failure, No hazard.	0V
D851	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D852	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D901	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
D911	Open	No hazard. Function failure.	48V
	Short	No hazard. Function failure.	48V
D914	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D915	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D916	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
D921	Open	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
D921	Short		R911, R912 opened, No hazard.	48V
D922	Open		No hazard.	0V
	Short		Normal operation.	48V
D923	Open		Normal operation.	48V
	Short		No hazard.	0V
D924	Open		Normal operation.	48V
	Short		No hazard.	0V
D931	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
D941	Open		No hazard. Function failure.	48V
	Short		No hazard. Function failure.	48V
D971	Open		No hazard. Function failure.	48V
	Short		No hazard. Function failure.	48V
D972	Open		Normal operation.	48V
	Short		No hazard.	0V
D991	Open		No hazard.	0V
	Short		No hazard. Function failure.	48V
D992	Open		No hazard. Function failure.	48V
	Short		No hazard. Function failure.	48V
D993	Open		No hazard. Function failure.	48V
	Short		No hazard. Function failure.	48V
IC201	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	0V

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Component	Mode		Comment	Output Voltage (V)
IC201	Open	4	No hazard. Function failure.	48V
		5	No hazard. Function failure.	48V
		6	No hazard.	0V
		7	TR106~110 shorted, F101, F102 opened,	0V
		8	TR106~110 shorted, F101, F102 opened,	0V
		9	No hazard.	0V
		10	No hazard.	0V
		11	No hazard. Function failure.	48V
		12	No hazard.	0V
		13	TR106~110 shorted, F101, F102 opened,	0V
		14	No hazard. Function failure.	48V
		15	TR106~110 shorted, F101, F102 opened,	0V
		16	TR106~110 shorted, F101, F102 opened,	0V
	Short	1-2	No hazard.	0V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
		4-5	No hazard.	0V
		5-6	No hazard.	0V
		6-7	No hazard.	0V
		7-8	IC201 failure, No hazard.	0V
		9-10	Normal operation.	48V
		10-11	IC201 failure, No hazard.	0V
		11-12	No hazard. Function failure.	48V
		12-13	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
IC201	Short	13-14	TR101~110 shorted, R120~123 opened, No hazard.	0V
		14-15	TR106~110 shorted, F101, F102 opened,	0V
		15-16	TR106~110 shorted, F101, F102 opened,	0V
IC202	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	0V
		4	No hazard. Function failure.	48V
		5	No hazard. Function failure.	48V
		6	No hazard.	0V
		7	TR106~110 shorted, F101, F102 opened,	0V
		8	TR106~110 shorted, F101, F102 opened,	0V
		9	No hazard.	0V
		10	No hazard.	0V
		11	No hazard. Function failure.	48V
		12	No hazard.	0V
		13	TR106~110 shorted, F101, F102 opened,	0V
		14	No hazard, Function failure.	48V
		15	TR106~110 shorted, F101, F102 opened,	0V
		16	TR106~110 shorted, F101, F102 opened,	0V
	Short	1-2	No hazard.	0V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
		4-5	No hazard.	0V
		5-6	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
IC202	Short	6-7	No hazard.	0V
		7-8	IC201 failure, No hazard.	0V
		9-10	Normal operation.	48V
		10-11	IC201 failure, No hazard.	0V
		11-12	No hazard. Function failure.	48V
		12-13	Normal operation.	48V
		13-14	TR101~110 shorted, R120~123 opened, No hazard.	0V
		14-15	TR106~110 shorted, F101, F102 opened,	0V
		15-16	TR106~110 shorted, F101, F102 opened,	0V
IC330	Open	1	No hazard. Function failure.	48V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
		5	No hazard.	0V
		6	ZD341 shorted, R340, R343 opened,	0V
		7	No hazard.	0V
		8	No hazard.	0V
	Short	1-2	No hazard.	0V
		2-3	No hazard.	0V
		3-4	No hazard.	0V
		4-5	No hazard.	0V
		5-6	No hazard.	0V
		6-7	ZD341 shorted, R340, R343 opened,	0V
		7-8	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
IC401	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
	Short	1-2	No hazard.	0V
		2-3	No hazard. Function failure.	48V
IC402	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		4	No hazard. Function failure.	48V
		5	No hazard. Function failure.	48V
		6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		2-3	Normal operation.	48V
		3-4	No hazard. Function failure.	48V
		5-6	No hazard. Function failure.	48V
		6-7	Normal operation.	48V
		7-8	Normal operation.	48V
IC403	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	Normal operation.	48V
		4	No hazard. Function failure.	48V
		5	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
IC403	Open	6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		2-3	Normal operation.	48V
		3-4	Normal operation.	48V
		5-6	No hazard. Function failure.	48V
		6-7	No hazard. Function failure.	48V
		7-8	No hazard. Function failure.	48V
IC501	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard. Function failure.	48V
		5	Normal operation.	48V
		6	Normal operation.	48V
		7	No hazard.	0V
		8	Normal operation.	48V
		9	Normal operation.	48V
		10	No hazard.	0V
		11	No hazard.	0V
		12	No hazard.	0V
		13	No hazard.	0V
		14	No hazard. Function failure.	48V
		15	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
IC501	Open	16	Normal operation.	48V
		17	No hazard.	0V
		18	No hazard. Function failure.	48V
		19	Normal operation.	48V
		20	No hazard.	0V
	Short	1-2	TR301~TR312 shorted, No hazard.	0V
		2-3	No hazard.	0V
		3-4	No hazard. Function failure.	48V
		4-5	No hazard. Function failure.	48V
		5-6	Normal operation.	48V
		6-7	No hazard. Function failure.	48V
		7-8	No hazard. Function failure.	48V
		8-9	Normal operation.	48V
		9-10	No hazard.	0V
		11-12	No hazard.	0V
		12-13	No hazard.	0V
		13-14	No hazard. Function failure.	48V
		14-15	No hazard. Function failure.	48V
		15-16	Normal operation.	48V
		16-17	Normal operation.	48V
		17-18	No hazard. Function failure.	48V
		18-19	No hazard. Function failure.	48V
		19-20	No hazard.	0V
IC530	Open	1	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
IC530	Open	2	No hazard.	0V
		3	No hazard.	0V
		4	Normal operation.	48V
		5	No hazard.	0V
		6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	Normal operation.	48V
		9	No hazard.	0V
		10	No hazard.	0V
		11	No hazard.	0V
		12	No hazard. Function failure.	48V
		13	Normal operation.	48V
		14	Normal operation.	48V
		15	Normal operation.	48V
		16	No hazard, Function failure.	48V
		17	Normal operation.	48V
		18	No hazard. Function failure.	48V
		19	No hazard.	0V
		20	No hazard.	0V
	Short	1-2	No hazard, Function failure.	48V
		2-3	No hazard. Function failure.	48V
		3-4	Normal operation.	48V
		4-5	Normal operation.	48V
		5-6	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
IC530	Short	6-7	Normal operation.	48V
		7-8	Normal operation.	48V
		8-9	Normal operation.	48V
		9-10	No hazard, Function failure.	48V
		11-12	No hazard.	0V
		12-13	Normal operation.	48V
		13-14	Normal operation.	48V
		14-15	Normal operation.	48V
		15-16	Normal operation.	48V
		16-17	No hazard. Function failure.	48V
		17-18	No hazard. Function failure.	48V
		18-19	No hazard.	0V
		19-20	No hazard. Function failure.	48V
IC531	Open	K	No hazard.	0V
		A	No hazard.	0V
		R	No hazard.	0V
	Short	A-K	No hazard.	0V
		K-R	No hazard.	0V
		R-A	No hazard.	0V
IC751	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
	Short	1-2	Normal operation.	48V
		2-3	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
IC801	Open	1	Normal operation.	48V
		2	Normal operation.	48V
		3	Normal operation.	48V
		4	No hazard.	0V
		5	No hazard.	0V
		6	No hazard.	0V
		7	No hazard.	0V
		8	No hazard.	0V
	Short	1-2	Normal operation.	48V
		2-3	Normal operation.	48V
		3-4	No hazard. Function failure.	48V
		5-6	No hazard.	0V
		6-7	No hazard.	0V
		7-8	No hazard. Function failure.	48V
IC821	Open	K	Normal operation.	48V
		A	Normal operation.	48V
		R	Normal operation.	48V
	Short	A-K	No hazard. Function failure.	48V
		K-R	Normal operation.	48V
		R-A	Normal operation.	48V
IC831	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
	Short	1-2	R711 opened, No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
IC831	Short	2-3	No hazard.	0V
IC840	Open	1	No hazard.	0V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		4	No hazard.	0V
		5	No hazard.	0V
		6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	Normal operation.	48V
		9	No hazard. Function failure.	48V
		10	No hazard. Function failure.	48V
		11	Normal operation.	48V
		12	No hazard. Function failure.	48V
		13	No hazard. Function failure.	48V
		14	No hazard. Function failure.	48V
		15	No hazard. Function failure.	48V
		16	Normal operation.	48V
		17	No hazard.	0V
		18	No hazard. Function failure.	48V
		19	No hazard. Function failure.	48V
		20	No hazard.	0V
	Short	1-2	No hazard. Function failure.	48V
		2-3	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
IC840	Short	4-5	No hazard. Function failure.	48V
		5-6	Normal operation.	48V
		6-7	Normal operation.	48V
		7-8	Normal operation.	48V
		8-9	Normal operation.	48V
		9-10	No hazard.	0V
		11-12	Normal operation.	48V
		12-13	No hazard. Function failure.	48V
		13-14	No hazard. Function failure.	48V
		14-15	No hazard. Function failure.	48V
		15-16	Normal operation.	48V
		16-17	Normal operation.	48V
		17-18	No hazard. Function failure.	48V
		18-19	No hazard. Function failure.	48V
		19-20	No hazard. Function failure.	48V
IC901	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
		5	No hazard.	0V
		6	No hazard.	0V
		7	No hazard.	0V
		8	No hazard.	0V
	Short	1-2	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
IC901	Short	2-3	No hazard.	0V
		3-4	No hazard.	0V
		5-6	No hazard.	0V
		6-7	No hazard.	0V
		7-8	No hazard.	0V
IC902	Open	1	Normal operation.	48V
		2	Output voltage decreased. No hazard.	decreased
		3	Output voltage rose. No hazard.	51V max
		4	Output voltage decreased. No hazard.	decreased
		5	No hazard.	0V
		6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	Output voltage decreased. No hazard.	decreased
	Short	1-2	Normal operation.	48V
		2-3	Output voltage rose. No hazard.	51V max
		3-4	Output voltage decreased. No hazard.	decreased
		5-6	No hazard.	0V
		6-7	No hazard. Function failure.	48V
		7-8	No hazard. Function failure.	48V
IC903	Open	1	Normal operation.	48V
		2	Normal operation.	48V
		3	Normal operation.	48V
		4	Output voltage decreased. No hazard.	decreased
		5	Output voltage rose. No hazard.	51V max

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Component	Mode		Comment	Output Voltage (V)
IC903	Open	6	Output voltage decreased. No hazard.	decreased
		7	Output voltage rose. No hazard.	51V max
		8	Output voltage rose. No hazard.	51V max
	Short	1-2	Normal operation.	48V
		2-3	Normal operation.	48V
		3-4	Normal operation.	48V
		5-6	Output voltage rose. No hazard.	51V max
		6-7	Output voltage rose. No hazard.	51V max
		7-8	No hazard. Function failure.	48V
IC910	Open	K	No hazard. Function failure.	48V
		A	No hazard. Function failure.	48V
		R	No hazard. Function failure.	48V
	Short	A-K	No hazard.	0V
		K-R	No hazard.	0V
		R-A	No hazard. Function failure.	48V
IC911	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
	Short	1-2	No hazard.	0V
		2-3	No hazard.	0V
J101	Open	TR101~TR105 shorted, F101~102 opened, No hazard.		0V
	Short	Normal operation.		48V
J102	Open	No hazard.		0V
	Short	Normal operation.		48V

F M E A

Component	Mode		Comment	Output Voltage (V)
J103	Open		TR106~TR110 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
J104	Open		No hazard.	0V
	Short		Normal operation.	48V
J111	Open		No hazard.	0V
	Short		Normal operation.	48V
J115	Open		No hazard.	0V
	Short		Normal operation.	48V
L101	Open	L1	No hazard.	0V
		L2	No hazard.	0V
	Short	L1	No hazard. Function failure.	48V
		L2	No hazard. Function failure.	48V
		L1-L2	F101~103 opened, No hazard.	0V
L102	Open	L1	No hazard.	0V
		L2	No hazard.	0V
	Short	L1	No hazard. Function failure.	48V
		L2	No hazard. Function failure.	48V
		L1-L2	F101~103 opened, No hazard.	0V
L104	Open	1	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		11, 12, 13	No hazard.	0V
		15, 16, 17	No hazard.	0V
L105	Open	1	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
L105	Open	11, 12, 13	No hazard.	0V
		15, 16, 17	No hazard.	0V
L111	Open		TR101 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L112	Open		TR102 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L113	Open		TR103 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L114	Open		TR104 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L115	Open		TR105 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L116	Open		TR106 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L117	Open		TR107 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L118	Open		TR108 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L119	Open		TR109 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L120	Open		TR110 shorted, F101~102 opened, No hazard.	0V
	Short		Normal operation.	48V
L301	Open		Normal operation.	48V
	Short		Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
L302	Open	Normal operation.	48V
	Short	Normal operation.	48V
L303	Open	Normal operation.	48V
	Short	Normal operation.	48V
L304	Open	Normal operation.	48V
	Short	Normal operation.	48V
L305	Open	Normal operation.	48V
	Short	Normal operation.	48V
L306	Open	Normal operation.	48V
	Short	Normal operation.	48V
L307	Open	Normal operation.	48V
	Short	Normal operation.	48V
L308	Open	Normal operation.	48V
	Short	Normal operation.	48V
L309	Open	Normal operation.	48V
	Short	Normal operation.	48V
L310	Open	Normal operation.	48V
	Short	Normal operation.	48V
L311	Open	Normal operation.	48V
	Short	Normal operation.	48V
L312	Open	Normal operation.	48V
	Short	Normal operation.	48V
L321	Open	Normal operation.	48V
	Short	Normal operation.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
L322	Open		Normal operation.	48V
	Short		Normal operation.	48V
L651	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
	Short	1-3	No hazard.	0V
		2-4	No hazard.	0V
L652	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
	Short	1-3	No hazard.	0V
		2-4	No hazard.	0V
PC504	Open	A, K	No hazard.	0V
		C, E	No hazard.	0V
	Short	A-K	No hazard.	0V
		C-E	No hazard. Function failure.	48V
PC505	Open	A, K	No hazard.	0V
		C, E	No hazard.	0V
	Short	A-K	No hazard.	0V
		C-E	No hazard.	0V
PC506	Open	A, K	No hazard.	0V
		C, E	No hazard.	0V

F M E A

Component	Mode		Comment.	Output Voltage (V)
PC506	Short	A-K	No hazard.	0V
		C-E	No hazard. Function failure.	48V
PC803	Open	A, K	No hazard. Function failure.	48V
		D, S	No hazard. Function failure.	48V
	Short	A-K	No hazard. Function failure.	48V
		D-S	No hazard. Function failure.	48V
PC805	Open	A, K	No hazard.	0V
		D, S	No hazard.	0V
	Short	A-K	No hazard.	0V
		D-S	No hazard. Function failure.	48V
PC806	Open	A, K	No hazard.	0V
		D, S	No hazard.	0V
	Short	A-K	No hazard.	0V
		D-S	No hazard. Function failure.	48V
PC901	Open	A, K	No hazard.	0V
		C, E	No hazard.	0V
	Short	A-K	No hazard.	0V
		C-E	No hazard. Function failure.	48V
SCR101	Open	K	R120~123 opened, No hazard.	0V
		A	R120~123 opened, No hazard.	0V
		G	R120~123 opened, No hazard.	0V
	Short	K-A	No hazard. Function failure.	48V
		K-G	No hazard. Function failure.	48V
		A-G	R120~123 opened, No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
SCR102	Open	K	R120~123 opened, No hazard.	0V
		A	R120~123 opened, No hazard.	0V
		G	R120~123 opened, No hazard.	0V
	Short	K-A	No hazard. Function failure.	48V
		K-G	No hazard. Function failure.	48V
		A-G	R120~123 opened, No hazard.	0V
SCR731	Open	K	No hazard. Function failure.	48V
		A	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	K-A	No hazard.	0V
		K-G	No hazard.	0V
		A-G	No hazard. Function failure.	48V
SS101	Open	+	SS102 shorted, F101~102 opened, No hazard.	0V
		-	SS102 shorted, F101~102 opened, No hazard.	0V
		AC	Normal operation.	48V
	Short	+-AC	F101~102 opened, No hazard.	0V
		AC---	F101~102 opened, No hazard.	0V
SS102	Open	+	Normal operation.	48V
		-	Normal operation.	48V
		AC	Normal operation.	48V
	Short	+-AC	F101~102 opened, No hazard.	0V
		AC---	F101~102 opened, No hazard.	0V
SS103	Open	+	SS102 shorted, F101~102 opened, No hazard.	0V
		-	SS102 shorted, F101~102 opened, No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
SS103	Open	AC	Normal operation.	48V
	Short	+-AC	F101~102 opened, No hazard.	0V
		AC--	F101~102 opened, No hazard.	0V
SS104	Open		No hazard.	0V
	Short		See 111 Page.	0V
SS105	Open		No hazard.	0V
	Short		See 111 Page.	0V
SS601	Open		No hazard.	0V
	Short		See 111 Page.	0V
SS602	Open		No hazard.	0V
	Short		See 111 Page.	0V
SS603	Open		Normal operation.	48V
	Short		See 111 Page.	0V
SS604	Open		Normal operation.	48V
	Short		See 111 Page.	0V
SS605	Open		Normal operation.	48V
	Short		See 111 Page.	0V
SS606	Open		Normal operation.	48V
	Short		See 111 Page.	0V
SS607	Open		No hazard.	0V
	Short		See 111 Page.	0V
SS608	Open		No hazard.	0V
	Short		See 112 Page.	0V
SS609	Open		Normal operation.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
SS609	Short		See 112 Page.	0V
SS610	Open		Normal operation.	48V
	Short		See 112 Page.	0V
SS611	Open		Normal operation.	48V
	Short		See 112 Page.	0V
SS612	Open		Normal operation.	48V
	Short		See 112 Page.	0V
T101	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		4	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
T102	Open	1	No hazard. Function failure.	48V
		2	No hazard. Function failure.	48V
		3	No hazard. Function failure.	48V
		4	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
T103	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
	Short	1-2	No hazard. Function failure.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
T103	Short	3-4	No hazard. Function failure.	48V
T104	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		4	No hazard.	0V
	Short	1-2	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
T301	Open	2, 3	No hazard.	0V
		7, 8	No hazard.	0V
		11, 12, 13	No hazard.	0V
		15, 16, 17	No hazard.	0V
	Short	2, 3-7, 8	See 112 Page.	0V
		11, 12, 13 -15, 16, 17	No hazard.	0V
T302	Open	2, 3	No hazard.	0V
		7, 8	No hazard.	0V
		11, 12, 13	No hazard.	0V
		15, 16, 17	No hazard.	0V
	Short	2, 3-7, 8	No hazard.	0V
		11, 12, 13 -15, 16, 17	No hazard.	0V
T303	Open	4	No hazard.	0V
		5	No hazard.	0V
		6	No hazard.	0V
		7	No hazard.	0V
		9	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
T303	Open	10	No hazard.	0V
	Short	4-5	No hazard.	0V
		6-7	No hazard.	0V
		9-10	No hazard.	0V
T304	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard. Function failure.	48V
		4	No hazard. Function failure.	48V
	Short	1-2	No hazard. Function failure.	48V
		3-4	No hazard. Function failure.	48V
T330	Open	1	No hazard.	0V
		3	No hazard.	0V
		5	No hazard.	0V
		6	No hazard.	0V
		7	No hazard.	0V
		8	No hazard.	0V
		9	No hazard.	0V
		10	No hazard.	0V
		11	No hazard.	0V
		12	No hazard.	0V
	Short	1-3	See 112 Page.	0V
		5-6	No hazard.	0V
		8-7	No hazard.	0V
		9-8	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
T330	Short	10-9	No hazard.	0V
		11-10	No hazard.	0V
		12-11	No hazard.	0V
TB1	Open		No hazard.	0V
TB2	Open		No hazard.	0V
THSW401	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
THSW402	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
THSW831	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
THSW832	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
TR101	Open	D	See 112 Page.	48V
		S	See 112 Page.	48V
		G	See 112 Page.	48V
	Short	D-S	See 112 Page.	0V
		S-G	See 112 Page.	0V
		G-D	See 112 Page.	0V
TR102	Open	D	See 112 Page.	48V
		S	See 112 Page.	48V
		G	See 112 Page.	48V
	Short	D-S	See 112 Page.	0V
		S-G	See 112 Page.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR102	Short	G-D	See 112 Page.	0V
TR103	Open	D	See 112 Page.	48V
		S	See 112 Page.	48V
		G	See 112 Page.	48V
	Short	D-S	See 112 Page.	0V
		S-G	See 112 Page.	0V
		G-D	See 113 Page.	0V
TR104	Open	D	See 113 Page.	48V
		S	See 113 Page.	48V
		G	See 113 Page.	48V
	Short	D-S	See 113 Page.	0V
		S-G	See 113 Page.	0V
		G-D	See 113 Page.	0V
TR105	Open	D	See 113 Page.	48V
		S	See 113 Page.	48V
		G	See 113 Page.	48V
	Short	D-S	See 113 Page.	0V
		S-G	See 113 Page.	0V
		G-D	See 113 Page.	0V
TR106	Open	D	See 113 Page.	48V
		S	See 113 Page.	48V
		G	See 113 Page.	48V
	Short	D-S	See 113 Page.	0V
		S-G	See 113 Page.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR106	Short	G-D	See 113 Page.	0V
TR107	Open	D	See 113 Page.	48V
		S	See 113 Page.	48V
		G	See 113 Page.	48V
	Short	D-S	See 113 Page.	0V
		S-G	See 113 Page.	0V
		G-D	See 114 Page.	0V
TR108	Open	D	See 114 Page.	48V
		S	See 114 Page.	48V
		G	See 114 Page.	48V
	Short	D-S	See 114 Page.	0V
		S-G	See 114 Page.	0V
		G-D	See 114 Page.	0V
TR109	Open	D	See 114 Page.	48V
		S	See 114 Page.	48V
		G	See 114 Page.	48V
	Short	D-S	See 114 Page.	0V
		S-G	See 114 Page.	0V
		G-D	See 114 Page.	0V
TR110	Open	D	See 114 Page.	48V
		S	See 114 Page.	48V
		G	See 114 Page.	48V
	Short	D-S	See 114 Page.	0V
		S-G	See 114 Page.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR110	Short	G-D	See 114 Page.	0V
TR111	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR112	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR113	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR114	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR114	Short	B-C	No hazard.	0V
TR115	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR116	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR117	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR118	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR118	Short	B-C	No hazard.	0V
TR119	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR120	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR121	Open	C	R120~123 opened, No hazard.	0V
		E	R120~123 opened, No hazard.	0V
		B	R120~123 opened, No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	R120~123 opened, No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR122	Open	C	R120~123 opened, No hazard.	0V
		E	R120~123 opened, No hazard.	0V
		B	R120~123 opened, No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	R120~123 opened, No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR122	Short	B-C	No hazard. Function failure.	48V
TR123	Open	C	R120~123 opened, No hazard.	0V
		E	R120~123 opened, No hazard.	0V
		B	R120~123 opened, No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	R120~123 opened, No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR124	Open	C	R120~123 opened, No hazard.	0V
		E	R120~123 opened, No hazard.	0V
		B	R120~123 opened, No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	R120~123 opened, No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR125	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR126	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR126	Short	B-C	No hazard.	0V
TR127	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR128	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR211	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR215	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 114 Page.	
		E-B	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR215	Short	B-C	No hazard.	0V
TR216	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 114 Page.	
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR217	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 114 Page.	
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR231	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR235	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 114 Page.	
		E-B	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR235	Short	B-C	No hazard.	0V
TR236	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 114 Page.	
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR237	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	See 115 Page.	
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR241	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR301	Open	D	See 115 Page.	48V
		S	See 115 Page.	48V
		G	See 115 Page.	48V
	Short	D-S	See 115 Page.	0V
		S-G	See 115 Page.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
TR301	Short	G-D	See 115 Page.	0V
TR302	Open	D	See 115 Page.	48V
		S	See 115 Page.	48V
		G	See 115 Page.	48V
	Short	D-S	See 115 Page.	0V
		S-G	See 115 Page.	0V
		G-D	See 115 Page.	0V
TR303	Open	D	See 115 Page.	48V
		S	See 115 Page.	48V
		G	See 115 Page.	48V
	Short	D-S	See 115 Page.	0V
		S-G	See 115 Page.	0V
		G-D	See 115 Page.	0V
TR304	Open	D	See 115 Page.	48V
		S	See 115 Page.	48V
		G	See 115 Page.	48V
	Short	D-S	See 115 Page.	0V
		S-G	See 115 Page.	0V
		G-D	See 116 Page.	0V
TR305	Open	D	See 116 Page.	48V
		S	See 116 Page.	48V
		G	See 116 Page.	48V
	Short	D-S	See 116 Page.	0V
		S-G	See 116 Page.	0V

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Component	Mode		Comment	Output Voltage (V)
TR305	Short	G-D	See 116 Page.	0V
TR306	Open	D	See 116 Page.	48V
		S	See 116 Page.	48V
		G	See 116 Page.	48V
	Short	D-S	See 116 Page.	0V
		S-G	See 116 Page.	0V
		G-D	See 116 Page.	0V
TR307	Open	D	See 116 Page.	48V
		S	See 116 Page.	48V
		G	See 116 Page.	48V
	Short	D-S	See 116 Page.	0V
		S-G	See 116 Page.	0V
		G-D	See 116 Page.	0V
TR308	Open	D	See 116 Page.	48V
		S	See 116 Page.	48V
		G	See 116 Page.	48V
	Short	D-S	See 116 Page.	0V
		S-G	See 116 Page.	0V
		G-D	See 117 Page.	0V
TR309	Open	D	See 117 Page.	48V
		S	See 117 Page.	48V
		G	See 117 Page.	48V
	Short	D-S	See 117 Page.	0V
		S-G	See 117 Page.	0V

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Component	Mode		Comment	Output Voltage (V)
TR309	Short	G-D	See 117 Page.	0V
TR310	Open	D	See 117 Page.	48V
		S	See 117 Page.	48V
		G	See 117 Page.	48V
	Short	D-S	See 117 Page.	0V
		S-G	See 117 Page.	0V
		G-D	See 117 Page.	0V
TR311	Open	D	See 117 Page.	48V
		S	See 117 Page.	48V
		G	See 117 Page.	48V
	Short	D-S	See 117 Page.	0V
		S-G	See 117 Page.	0V
		G-D	See 117 Page.	0V
TR312	Open	D	See 117 Page.	48V
		S	See 117 Page.	48V
		G	See 117 Page.	48V
	Short	D-S	See 117 Page.	0V
		S-G	See 117 Page.	0V
		G-D	See 118 Page.	0V
TR313	Open	C	No hazard.	0V
		E	TR303, TR306 shorted, No hazard.	0V
		B	TR303, TR306 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR313	Short	B-C	No hazard.	0V
TR314	Open	C	No hazard.	0V
		E	TR304, TR305 shorted, No hazard.	0V
		B	TR304, TR305 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR315	Open	C	No hazard.	0V
		E	TR301, TR302 shorted, No hazard.	0V
		B	TR301, TR302 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR316	Open	C	No hazard.	0V
		E	TR309, TR312 shorted, No hazard.	0V
		B	TR309, TR312 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR317	Open	C	No hazard.	0V
		E	TR310, TR311 shorted, No hazard.	0V
		B	TR310, TR311 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR317	Short	B-C	No hazard.	0V
TR318	Open	C	No hazard.	0V
		E	TR307, TR308 shorted, No hazard.	0V
		B	TR307, TR308 shorted, No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR330	Open	D	See 118 Page.	0V
		S	See 118 Page.	0V
		G	See 118 Page.	0V
	Short	D-S	See 118 Page.	0V
		S-G	See 118 Page.	0V
		G-D	See 118 Page.	0V
TR331	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V
		G-D	No hazard. Function failure.	48V
TR332	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR332	Short	B-C	No hazard.	0V
TR335	Open	C	No hazard.	0V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	TR332 shorted, No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR336	Open	C	No hazard.	0V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	TR332 shorted, No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR337	Open	C	No hazard.	0V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	TR332 shorted, No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR338	Open	C	No hazard.	0V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	TR332 shorted, No hazard.	0V
		E-B	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR338	Short	B-C	No hazard.	0V
TR401	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V
		G-D	No hazard. Function failure.	48V
TR501	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR503	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V
		G-D	No hazard. Function failure.	48V
TR532	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR532	Short	B-C	No hazard.	0V
TR533	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR534	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR536	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V
		G-D	No hazard. Function failure.	48V
TR537	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR537	Short	G-D	No hazard. Function failure.	48V
TR538	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard. Function failure.	48V
		G-D	No hazard. Function failure.	48V
TR601	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V
		G-D	No hazard.	0V
TR602	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V
		G-D	No hazard.	0V
TR603	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V

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Component	Mode		Comment	Output Voltage (V)
TR603	Short	G-D	No hazard.	0V
TR604	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V
		G-D	No hazard.	0V
TR605	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V
		G-D	No hazard.	0V
TR606	Open	D	Normal operation.	48V
		S	Normal operation.	48V
		G	Normal operation.	48V
	Short	D-S	No hazard. Function failure.	48V
		S-G	No hazard.	0V
		G-D	No hazard.	0V
TR610	Open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	Short	D-S	R691~693 opened, No hazard.	48V
		S-G	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR610	Short	G-D	R690, R691~693 opened, No hazard.	48V
TR801	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR805	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR822	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR833	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR833	Short	B-C	No hazard. Function failure.	48V
TR834	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR835	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR836	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR837	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR837	Short	B-C	No hazard.	0V
TR841	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard. Function failure.	48V
TR842	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR843	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR844	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR844	Short	B-C	No hazard.	0V
TR845	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR846	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR848	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR851	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR851	Short	B-C	No hazard.	0V
TR852	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR901	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard.	0V
		E-B	No hazard.	0V
		B-C	No hazard.	0V
TR911	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR941	Open	C	Normal operation.	48V
		E	Normal operation.	48V
		B	Normal operation.	48V
	Short	C-E	Normal operation.	48V
		E-B	Normal operation.	48V

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Component	Mode		Comment	Output Voltage (V)
TR941	Short	B-C	Normal operation.	48V
TR971	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	No hazard. Function failure.	48V
		E-B	No hazard.	0V
		B-C	No hazard. Function failure.	48V
TR972	Open	C	No hazard.	0V
		E	No hazard.	0V
		B	No hazard.	0V
	Short	C-E	Normal operation.	48V
		E-B	No hazard.	0V
		B-C	Normal operation.	48V
TR973	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V
		B-C	No hazard.	0V
TR974	Open	C	No hazard. Function failure.	48V
		E	No hazard. Function failure.	48V
		B	No hazard. Function failure.	48V
	Short	C-E	No hazard.	0V
		E-B	No hazard. Function failure.	48V

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Component	Mode		Comment	Output Voltage (V)
TR974	Short	B-C	No hazard.	0V
VR201	Open	brush	No hazard. Function failure.	48V
			No hazard.	0V
	Short		No hazard. Function failure.	48V
VR801	Open	brush	No hazard. Function failure.	48V
			No hazard.	0V
	Short		No hazard. Function failure.	48V
VR931	Open	brush	No hazard.	0V
			No hazard.	0V
	Short		No hazard. Function failure.	48V
VR941	Open	brush	Normal operation.	48V
			Normal operation.	48V
	Short		Normal operation.	48V
VR961	Open	brush	No hazard. Function failure.	48V
			No hazard. Function failure.	48V
	Short		No hazard. Function failure.	48V
XTAL530	Open		No hazard.	0V
	Short		No hazard. Function failure.	48V
ZD331	Open		No hazard. Function failure.	48V
	Short		No hazard.	0V
ZD335	Open		Normal operation.	48V
	Short		No hazard.	0V
ZD341	Open		Normal operation.	48V
	Short		R340 opened, No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
ZD591	Open	No hazard.	0V
	Short	Normal operation.	48V
ZD731	Open	Normal operation.	48V
	Short	No hazard.	0V
ZD801	Open	IC801 failure, No hazard.	0V
	Short	No hazard.	0V
ZD802	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
ZD841	Open	No hazard. Function failure.	48V
	Short	No hazard.	0V
ZD861	Open	No hazard.	0V
	Short	No hazard. Function failure.	48V
R100	Open	No hazard.	0V
R101	Open	R120~123 opened, No hazard.	0V
R102	Open	R120~123 opened, No hazard.	0V
R103	Open	R120~123 opened, No hazard.	0V
R104	Open	R120~123 opened, No hazard.	0V
R105	Open	R120~123 opened, No hazard.	0V
R106	Open	R120~123 opened, No hazard.	0V
R107	Open	R120~123 opened, No hazard.	0V
R108	Open	R120~123 opened, No hazard.	0V
R109	Open	R120~123 opened, No hazard.	0V
R110	Open	R120~123 opened, No hazard.	0V
R111	Open	R120~123 opened, No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
R112	Open	R120~123 opened, No hazard.	0V
R113	Open	No hazard.	0V
R114	Open	No hazard.	0V
R115	Open	No hazard.	0V
R116	Open	No hazard.	0V
R119	Open	No hazard.	0V
R120	Open	No hazard. Function failure.	48V
R121	Open	No hazard. Function failure.	48V
R122	Open	No hazard. Function failure.	48V
R123	Open	No hazard. Function failure.	48V
R124	Open	No hazard.	0V
R125	Open	R120~123 opened, No hazard.	0V
R126	Open	R120~123 opened, No hazard.	0V
R128	Open	R120~123, R125 opened, No hazard.	0V
R129	Open	R120~123 opened, No hazard.	0V
R130	Open	Normal operation.	48V
R131	Open	Normal operation.	48V
R132	Open	R120~123, R126 opened, No hazard.	0V
R133	Open	R120~123 opened, No hazard.	0V
R134	Open	Normal operation.	48V
R135	Open	Normal operation.	48V
R140	Open	No hazard.	0V
R141	Open	F101~102 opened, No hazard.	0V
R142	Open	F101~102 opened, No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
R143	Open	F101~102 opened, No hazard.	0V
R144	Open	F101~102 opened, No hazard.	0V
R145	Open	F101~102 opened, No hazard.	0V
R146	Open	F101~102 opened, No hazard.	0V
R147	Open	F101~102 opened, No hazard.	0V
R148	Open	F101~102 opened, No hazard.	0V
R149	Open	F101~102 opened, No hazard.	0V
R150	Open	F101~102 opened, No hazard.	0V
R151	Open	No hazard. Function failure.	48V
R152	Open	No hazard. Function failure.	48V
R153	Open	Normal operation.	48V
R154	Open	Normal operation.	48V
R155	Open	Normal operation.	48V
R156	Open	Normal operation.	48V
R157	Open	Normal operation.	48V
R158	Open	Normal operation.	48V
R159	Open	Normal operation.	48V
R162	Open	Normal operation.	48V
R163	Open	Normal operation.	48V
R166	Open	Normal operation.	48V
R167	Open	Normal operation.	48V
R168	Open	Normal operation.	48V
R169	Open	Normal operation.	48V
R170	Open	Normal operation.	48V

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Component	Mode	Comment	Output Voltage (V)
R171	Open	Normal operation.	48V
R172	Open	No hazard. Function failure.	48V
R173	Open	No hazard. Function failure.	48V
R174	Open	No hazard. Function failure.	48V
R175	Open	No hazard. Function failure.	48V
R176	Open	No hazard. Function failure.	48V
R177	Open	No hazard. Function failure.	48V
R178	Open	No hazard. Function failure.	48V
R179	Open	No hazard. Function failure.	48V
R180	Open	No hazard. Function failure.	48V
R208	Open	No hazard.	0V
R209	Open	No hazard.	0V
R210	Open	No hazard.	0V
R211	Open	No hazard.	0V
R217	Open	No hazard.	0V
R218	Open	No hazard.	0V
R219	Open	No hazard.	0V
R220	Open	No hazard.	0V
R221	Open	Normal operation.	48V
R222	Open	Normal operation.	48V
R223	Open	Normal operation.	48V
R224	Open	Normal operation.	48V
R226	Open	No hazard.	0V
R227	Open	No hazard.	0V

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Component	Mode	Comment	Output Voltage (V)
R231	Open	No hazard.	0V
R232	Open	No hazard. Function failure.	48V
R233	Open	No hazard.	0V
R234	Open	Normal operation.	48V
R235	Open	No hazard.	0V
R236	Open	Normal operation.	48V
R237	Open	IC201~202 failure, No hazard.	0V
R238	Open	IC201~202 failure, No hazard.	0V
R239	Open	No hazard.	0V
R240	Open	No hazard.	0V
R241	Open	No hazard.	0V
R242	Open	No hazard.	0V
R243	Open	No hazard.	0V
R244	Open	No hazard. Function failure.	48V
R245	Open	No hazard. Function failure.	48V
R246	Open	No hazard. Function failure.	48V
R247	Open	No hazard. Function failure.	48V
R248	Open	No hazard.	0V
R249	Open	Normal operation.	48V
R250	Open	Normal operation.	48V
R251	Open	Normal operation.	48V
R252	Open	Normal operation.	48V
R253	Open	Normal operation.	48V
R254	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R255	Open	No hazard.	0V
R258	Open	Normal operation.	48V
R259	Open	Normal operation.	48V
R260	Open	No hazard. Function failure.	48V
R261	Open	No hazard.	0V
R262	Open	No hazard.	0V
R263	Open	Normal operation.	48V
R264	Open	Normal operation.	48V
R265	Open	Normal operation.	48V
R266	Open	Normal operation.	48V
R267	Open	No hazard.	0V
R268	Open	No hazard.	0V
R269	Open	No hazard. Function failure.	48V
R270	Open	No hazard.	0V
R271	Open	No hazard.	0V
R272	Open	No hazard.	0V
R273	Open	No hazard.	0V
R274	Open	No hazard. Function failure.	48V
R275	Open	No hazard. Function failure.	48V
R276	Open	No hazard. Function failure.	48V
R277	Open	No hazard. Function failure.	48V
R278	Open	No hazard.	0V
R279	Open	Normal operation.	48V
R280	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R281	Open	Normal operation.	48V
R282	Open	Normal operation.	48V
R283	Open	Normal operation.	48V
R284	Open	Normal operation.	48V
R285	Open	No hazard.	0V
R288	Open	Normal operation.	48V
R289	Open	Normal operation.	48V
R290	Open	No hazard. Function failure.	48V
R291	Open	No hazard.	0V
R292	Open	No hazard.	0V
R293	Open	Normal operation.	48V
R294	Open	Normal operation.	48V
R295	Open	Normal operation.	48V
R296	Open	Normal operation.	48V
R297	Open	No hazard.	0V
R298	Open	No hazard.	0V
R299	Open	No hazard. Function failure.	48V
R301	Open	Normal operation.	48V
R302	Open	Normal operation.	48V
R303	Open	Normal operation.	48V
R304	Open	Normal operation.	48V
R305	Open	Normal operation.	48V
R306	Open	Normal operation.	48V
R307	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R308	Open	Normal operation.	48V
R309	Open	Normal operation.	48V
R310	Open	Normal operation.	48V
R311	Open	Normal operation.	48V
R312	Open	Normal operation.	48V
R313	Open	TR303, TR306 shorted, No hazard.	0V
R314	Open	TR304, TR305 shorted, No hazard.	0V
R315	Open	TR301, TR302 shorted, No hazard.	0V
R316	Open	TR309, TR312 shorted, No hazard.	0V
R317	Open	TR310, TR311 shorted, No hazard.	0V
R318	Open	TR307, TR308 shorted, No hazard.	0V
R319	Open	Normal operation.	48V
R320	Open	Normal operation.	48V
R321	Open	Normal operation.	48V
R322	Open	Normal operation.	48V
R323	Open	Normal operation.	48V
R324	Open	Normal operation.	48V
R325	Open	Normal operation.	48V
R326	Open	Normal operation.	48V
R327	Open	Normal operation.	48V
R328	Open	Normal operation.	48V
R329	Open	Normal operation.	48V
R330	Open	Normal operation.	48V
R331	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R332	Open	Normal operation.	48V
R333	Open	Normal operation.	48V
R334	Open	Normal operation.	48V
R335	Open	Normal operation.	48V
R336	Open	No hazard.	0V
R337	Open	No hazard.	0V
R340	Open	No hazard.	0V
R342	Open	No hazard.	0V
R343	Open	No hazard.	0V
R344	Open	Normal operation.	48V
R346	Open	Normal operation.	48V
R347	Open	Normal operation.	48V
R348	Open	Normal operation.	48V
R349	Open	No hazard. Function failure.	48V
R350	Open	No hazard.	0V
R351	Open	No hazard.	0V
R352	Open	Normal operation.	48V
R353	Open	No hazard.	0V
R354	Open	See 118 Page.	0V
R355	Open	ZD341 shorted, R340, R343 opened,	0V
R356	Open	No hazard. Function failure.	48V
R357	Open	Normal operation.	48V
R358	Open	Normal operation.	48V
R359	Open	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
R360	Open	See 118 Page.	0V
R361	Open	No hazard. Function failure.	48V
R362	Open	No hazard. Function failure.	48V
R363	Open	Normal operation.	48V
R364	Open	Normal operation.	48V
R365	Open	Normal operation.	48V
R366	Open	Normal operation.	48V
R367	Open	Normal operation.	48V
R368	Open	Normal operation.	48V
R369	Open	Normal operation.	48V
R370	Open	Normal operation.	48V
R371	Open	Normal operation.	48V
R372	Open	Normal operation.	48V
R373	Open	Normal operation.	48V
R374	Open	Normal operation.	48V
R375	Open	Normal operation.	48V
R376	Open	No hazard.	0V
R381	Open	Normal operation.	48V
R382	Open	Normal operation.	48V
R383	Open	Normal operation.	48V
R384	Open	Normal operation.	48V
R385	Open	Normal operation.	48V
R386	Open	Normal operation.	48V
R387	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R388	Open	Normal operation.	48V
R389	Open	Normal operation.	48V
R390	Open	Normal operation.	48V
R391	Open	Normal operation.	48V
R392	Open	Normal operation.	48V
R393	Open	Normal operation.	48V
R394	Open	Normal operation.	48V
R395	Open	Normal operation.	48V
R396	Open	Normal operation.	48V
R397	Open	Normal operation.	48V
R398	Open	Normal operation.	48V
R399	Open	Normal operation.	48V
R401	Open	No hazard. Function failure.	48V
R402	Open	No hazard. Function failure.	48V
R403	Open	No hazard. Function failure.	48V
R404	Open	No hazard. Function failure.	48V
R405	Open	No hazard. Function failure.	48V
R406	Open	No hazard. Function failure.	48V
R407	Open	No hazard. Function failure.	48V
R408	Open	No hazard. Function failure.	48V
R409	Open	No hazard. Function failure.	48V
R410	Open	No hazard. Function failure.	48V
R411	Open	No hazard.	0V
R412	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R413	Open	Normal operation.	48V
R415	Open	Normal operation.	48V
R416	Open	Normal operation.	48V
R422	Open	Normal operation.	48V
R423	Open	Normal operation.	48V
R424	Open	Normal operation.	48V
R425	Open	No hazard.	0V
R433	Open	Normal operation.	48V
R441	Open	No hazard.	0V
R443	Open	Normal operation.	48V
R444	Open	Normal operation.	48V
R445	Open	Normal operation.	48V
R446	Open	Normal operation.	48V
R451	Open	No hazard.	0V
R452	Open	No hazard.	0V
R453	Open	No hazard.	0V
R454	Open	No hazard.	0V
R455	Open	No hazard.	0V
R501	Open	No hazard.	0V
R502	Open	No hazard.	0V
R503	Open	Normal operation.	48V
R504	Open	Normal operation.	48V
R505	Open	Normal operation.	48V
R506	Open	No hazard. Function failure.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R507	Open	No hazard.	0V
R508	Open	No hazard.	0V
R509	Open	Normal operation.	48V
R510	Open	No hazard. Function failure.	48V
R511	Open	No hazard. Function failure.	48V
R512	Open	No hazard.	0V
R513	Open	No hazard. Function failure.	48V
R517	Open	Normal operation.	48V
R518	Open	No hazard. Function failure.	48V
R530	Open	No hazard.	0V
R531	Open	No hazard. Function failure.	48V
R533	Open	No hazard. Function failure.	48V
R535	Open	No hazard.	0V
R536	Open	No hazard. Function failure.	48V
R537	Open	Normal operation.	48V
R540	Open	No hazard. Function failure.	48V
R541	Open	No hazard.	0V
R543	Open	No hazard.	0V
R544	Open	No hazard. Function failure.	48V
R546	Open	Normal operation.	48V
R548	Open	No hazard. Function failure.	48V
R549	Open	No hazard. Function failure.	48V
R551	Open	Normal operation.	48V
R552	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R553	Open	IC530 failure, No hazard.	0V
R554	Open	No hazard.	0V
R563	Open	No hazard.	0V
R564	Open	No hazard.	0V
R595	Open	No hazard.	0V
R597	Open	Normal operation.	48V
R598	Open	Normal operation.	48V
R599	Open	Normal operation.	48V
R601	Open	Normal operation.	48V
R602	Open	Normal operation.	48V
R603	Open	Normal operation.	48V
R604	Open	Normal operation.	48V
R605	Open	Normal operation.	48V
R606	Open	Normal operation.	48V
R607	Open	Normal operation.	48V
R608	Open	Normal operation.	48V
R609	Open	Normal operation.	48V
R610	Open	Normal operation.	48V
R611	Open	Normal operation.	48V
R612	Open	Normal operation.	48V
R613	Open	Normal operation.	48V
R614	Open	Normal operation.	48V
R615	Open	Normal operation.	48V
R616	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R617	Open	Normal operation.	48V
R618	Open	Normal operation.	48V
R619	Open	Normal operation.	48V
R620	Open	Normal operation.	48V
R621	Open	Normal operation.	48V
R622	Open	Normal operation.	48V
R623	Open	Normal operation.	48V
R624	Open	Normal operation.	48V
R625	Open	Normal operation.	48V
R626	Open	Normal operation.	48V
R627	Open	Normal operation.	48V
R628	Open	Normal operation.	48V
R629	Open	Normal operation.	48V
R630	Open	Normal operation.	48V
R631	Open	Normal operation.	48V
R632	Open	Normal operation.	48V
R633	Open	Normal operation.	48V
R641	Open	Normal operation.	48V
R642	Open	Normal operation.	48V
R643	Open	Normal operation.	48V
R644	Open	Normal operation.	48V
R645	Open	Normal operation.	48V
R646	Open	Normal operation.	48V
R647	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R648	Open	Normal operation.	48V
R649	Open	Normal operation.	48V
R650	Open	Normal operation.	48V
R651	Open	Normal operation.	48V
R652	Open	Normal operation.	48V
R653	Open	Normal operation.	48V
R654	Open	Normal operation.	48V
R655	Open	Normal operation.	48V
R656	Open	Normal operation.	48V
R657	Open	Normal operation.	48V
R658	Open	Normal operation.	48V
R659	Open	Normal operation.	48V
R660	Open	Normal operation.	48V
R661	Open	Normal operation.	48V
R662	Open	Normal operation.	48V
R663	Open	Normal operation.	48V
R664	Open	Normal operation.	48V
R665	Open	Normal operation.	48V
R666	Open	Normal operation.	48V
R667	Open	Normal operation.	48V
R668	Open	Normal operation.	48V
R669	Open	Normal operation.	48V
R670	Open	Normal operation.	48V
R671	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R672	Open	Normal operation.	48V
R673	Open	Normal operation.	48V
R680	Open	Normal operation.	48V
R681	Open	Normal operation.	48V
R682	Open	Normal operation.	48V
R683	Open	Normal operation.	48V
R684	Open	Normal operation.	48V
R685	Open	Normal operation.	48V
R686	Open	Normal operation.	48V
R690	Open	No hazard. Function failure.	48V
R691	Open	Normal operation.	48V
R692	Open	Normal operation.	48V
R693	Open	Normal operation.	48V
R695	Open	No hazard.	0V
R696	Open	Normal operation.	48V
R701	Open	No hazard.	0V
R702	Open	No hazard.	0V
R703	Open	No hazard.	0V
R704	Open	No hazard.	0V
R711	Open	No hazard.	0V
R721	Open	Normal operation.	48V
R722	Open	Normal operation.	48V
R723	Open	Normal operation.	48V
R724	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R725	Open	Normal operation.	48V
R726	Open	Normal operation.	48V
R727	Open	Normal operation.	48V
R728	Open	Normal operation.	48V
R731	Open	No hazard. Function failure.	48V
R732	Open	Normal operation.	48V
R801	Open	No hazard.	0V
R802	Open	No hazard.	0V
R803	Open	Normal operation.	48V
R804	Open	No hazard.	0V
R805	Open	No hazard.	0V
R806	Open	Normal operation.	48V
R807	Open	No hazard.	0V
R808	Open	No hazard.	0V
R815	Open	Normal operation.	48V
R816	Open	No hazard. Function failure.	48V
R817	Open	No hazard. Function failure.	48V
R818	Open	No hazard. Function failure.	48V
R820	Open	No hazard.	0V
R821	Open	No hazard.	0V
R822	Open	IC821 failure. No hazard.	48V
R823	Open	Normal operation.	48V
R824	Open	No hazard. Function failure.	48V
R831	Open	No hazard. Function failure.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R832	Open	No hazard. Function failure.	48V
R833	Open	Normal operation.	48V
R835	Open	No hazard.	0V
R836	Open	No hazard.	0V
R837	Open	No hazard.	0V
R838	Open	Normal operation.	48V
R839	Open	Normal operation.	48V
R841	Open	No hazard. Function failure.	48V
R842	Open	No hazard.	0V
R843	Open	No hazard.	0V
R844	Open	No hazard. Function failure.	48V
R845	Open	No hazard.	0V
R846	Open	No hazard. Function failure.	48V
R847	Open	No hazard. Function failure.	48V
R848	Open	No hazard. Function failure.	48V
R849	Open	No hazard. Function failure.	48V
R851	Open	No hazard.	0V
R852	Open	No hazard. Function failure.	48V
R853	Open	No hazard.	0V
R855	Open	No hazard. Function failure.	48V
R856	Open	Normal operation.	48V
R857	Open	Normal operation.	48V
R858	Open	Normal operation.	48V
R859	Open	Normal operation.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R862	Open	No hazard.	0V
R864	Open	Normal operation.	48V
R865	Open	Normal operation.	48V
R885	Open	Normal operation.	48V
R886	Open	Normal operation.	48V
R890	Open	Normal operation.	48V
R891	Open	Normal operation.	48V
R892	Open	No hazard.	0V
R901	Open	No hazard.	0V
R902	Open	No hazard.	0V
R903	Open	No hazard. Function failure.	48V
R904	Open	No hazard.	0V
R905	Open	No hazard. Function failure.	48V
R906	Open	No hazard.	0V
R907	Open	No hazard.	0V
R908	Open	No hazard.	0V
R909	Open	No hazard. Function failure.	48V
R910	Open	No hazard.	0V
R911	Open	Normal operation.	48V
R912	Open	Normal operation.	48V
R913	Open	Normal operation.	48V
R914	Open	Normal operation.	48V
R915	Open	Normal operation.	48V
R921	Open	No hazard. Function failure.	48V

F M E A

Component	Mode	Comment	Output Voltage (V)
R922	Open	No hazard. Function failure.	48V
R923	Open	No hazard. Function failure.	48V
R924	Open	No hazard. Function failure.	48V
R925	Open	No hazard. Function failure.	48V
R926	Open	No hazard. Function failure.	48V
R927	Open	No hazard. Function failure.	48V
R928	Open	No hazard. Function failure.	48V
R929	Open	No hazard. Function failure.	48V
R931	Open	Normal operation.	48V
R932	Open	No hazard. Function failure.	48V
R933	Open	No hazard.	0V
R934	Open	No hazard.	0V
R935	Open	No hazard. Function failure.	48V
R936	Open	No hazard.	0V
R937	Open	No hazard. Function failure.	48V
R941	Open	Normal operation.	48V
R942	Open	Normal operation.	48V
R943	Open	Normal operation.	48V
R944	Open	Normal operation.	48V
R945	Open	Normal operation.	48V
R946	Open	Normal operation.	48V
R948	Open	Normal operation.	48V
R951	Open	No hazard.	0V
R952	Open	No hazard.	0V

F M E A

Component	Mode	Comment	Output Voltage (V)
R953	Open	Normal operation.	48V
R955	Open	Normal operation.	48V
R956	Open	No hazard. Function failure.	48V
R957	Open	No hazard.	0V
R958	Open	Normal operation.	48V
R960	Open	No hazard. Function failure.	48V
R961	Open	No hazard. Function failure.	48V
R962	Open	No hazard. Function failure.	48V
R963	Open	No hazard. Function failure.	48V
R964	Open	No hazard. Function failure.	48V
R965	Open	No hazard. Function failure.	48V
R966	Open	No hazard. Function failure.	48V
R967	Open	No hazard. Function failure.	48V
R968	Open	No hazard. Function failure.	48V
R969	Open	No hazard. Function failure.	48V
R971	Open	Normal operation.	48V
R972	Open	No hazard. Function failure.	48V
R973	Open	No hazard. Function failure.	48V
R974	Open	No hazard. Function failure.	48V
R975	Open	No hazard.	0V
R976	Open	No hazard.	0V
R977	Open	No hazard.	0V
R978	Open	Normal operation.	48V
R990	Open	No hazard. Function failure.	48V

F M E A

Component	Mode		Comment	Output Voltage (V)
R992	Open		No hazard.	0V
R993	Open		Normal operation.	48V
SCH332-HA1	Open		No hazard.	0V
SCH332-HA2	Open		No hazard.	0V
ADV6002-HA3	Open	1	No hazard.	0V
		2	No hazard.	0V
		4	No hazard. Function failure.	48V
		5	No hazard.	0V
		6	No hazard.	0V
		7	No hazard.	0V
		8	No hazard. Function failure.	48V
	Short	1-2	Normal operation.	48V
		4-5	No hazard.	0V
		5-6	No hazard.	0V
		6-7	No hazard.	0V
		7-8	No hazard.	0V
ADV6002-HA4	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		5	No hazard.	0V
		6	No hazard.	0V
	Short	1-2	No hazard.	0V
		2-3	No hazard.	0V
		5-6	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
SCH332-HA3	Open	1	Normal operation.	48V
		2	No hazard.	0V
		3	No hazard.	0V
		4	Normal operation.	48V
		6	No hazard.	0V
		7	No hazard.	0V
		8	No hazard.	0V
		9	No hazard.	0V
		11	No hazard.	0V
		12	No hazard.	0V
	Short	1-2	Normal operation.	48V
		2-3	No hazard.	0V
		3-4	Normal operation.	48V
		6-7	R711 opened, No hazard.	0V
		7-8	R711 opened, No hazard.	0V
		8-9	No hazard.	0V
		11-12	No hazard.	0V
ADV6002-HA6	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		5	No hazard.	0V
		7	No hazard. Function failure.	48V
		8	No hazard. Function failure.	48V
		9	No hazard.	0V

F M E A

Component	Mode		Comment	Output Voltage (V)
ADV6002-HA6	Open	10	No hazard. Function failure.	48V
	Short	1-2	No hazard.	0V
		2-3	Normal operation.	48V
		7-8	No hazard. Function failure.	48V
		8-9	TR610 shorted, No hazard.	0V
		9-10	No hazard. Function failure.	48V
ADV6002-HA7	Open	1	No hazard.	0V
		2	No hazard.	0V
		3	No hazard.	0V
		5	No hazard. Function failure.	48V
		6	No hazard. Function failure.	48V
		7	No hazard. Function failure.	48V
		8	No hazard. Function failure.	48V
	Short	1-2	No hazard.	0V
		2-3	No hazard.	0V
		5-6	No hazard. Function failure.	48V
		6-7	No hazard. Function failure.	48V
		7-8	No hazard. Function failure.	48V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C114	short		R120~R123 opened, No hazard.	0V
C120	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C171	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C172	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C173	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C174	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C175	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C176	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C177	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C178	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C179	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C301	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C326	short		SCR101, SCR102 shorted, F101, F102 opened, No hazard.	0V
C651	short		No hazard.	0V
C802	short		No hazard.	0V
SS104	short	A-K	SS105, TR101~TR105 shorted, F101, F102 opened, No hazard.	0V
SS105	short	A-K	SS104, TR106~TR110 shorted, F101, F102 opened, No hazard.	0V
SS601	short	A-K	No hazard.	0V
SS602	short	A-K	No hazard.	0V
SS603	short	A-K	No hazard.	0V
SS604	short	A-K	No hazard.	0V
SS605	short	A-K	No hazard.	0V
SS606	short	A-K	No hazard.	0V
SS607	short	A-K	No hazard.	0V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
SS608	short	A-K	No hazard.	0V
SS609	short	A-K	No hazard.	0V
SS610	short	A-K	No hazard.	0V
SS611	short	A-K	No hazard.	0V
SS612	short	A-K	No hazard.	0V
T301	short	2, 3-7, 8	No hazard.	0V
T330	short	1-3	No hazard.	0V
TR101	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR101 shorted, R141 opened, F101, F102 opened, No hazard.	0V
TR102	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR102 shorted, R142 opened, F101, F102 opened, No hazard.	0V
TR103	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR103	short	G-D	TR103 shorted, R143 opened, F101, F102 opened, No hazard.	0V
TR104	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR104 shorted, R144 opened, F101, F102 opened, No hazard.	0V
TR105	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR105 shorted, R145 opened, F101, F102 opened, No hazard.	0V
TR106	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR106 shorted, R146 opened, F101, F102 opened, No hazard.	0V
TR107	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR107	short	G-D	TR107 shorted, R147 opened, F101, F102 opened, No hazard.	0V
TR108	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR108 shorted, R148 opened, F101, F102 opened, No hazard.	0V
TR109	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR109 shorted, R149 opened, F101, F102 opened, No hazard.	0V
TR110	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	F101, F102 opened, No hazard.	0V
		S-G	No hazard. Function failure.	48V
		G-D	TR110 shorted, R150 opened, F101, F102 opened, No hazard.	0V
TR215	Short	C-E	No hazard. Function failure.	48V
TR216	Short	C-E	No hazard. Function failure.	48V
TR217	Short	C-E	No hazard. Function failure.	48V
TR235	Short	C-E	No hazard. Function failure.	48V
TR236	Short	C-E	No hazard. Function failure.	48V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR237	Short	C-E	No hazard. Function failure.	48V
TR301	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR302	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR303	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR304	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR304	short	G-D	No hazard.	0V
TR305	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR306	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR307	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR308	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR308	short	G-D	No hazard.	0V
TR309	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR310	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR311	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V
		G-D	No hazard.	0V
TR312	open	D	No hazard. Function failure.	48V
		S	No hazard. Function failure.	48V
		G	No hazard. Function failure.	48V
	short	D-S	No hazard.	0V
		S-G	TR301~306, D313~315 shorted, F101, F102 opened, No hazard.	0V

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR312	short	G-D	No hazard.	0V
TR330	open	D	No hazard.	0V
		S	No hazard.	0V
		G	R340 opened, No hazard.	0V
	short	D-S	R340 opened, No hazard.	0V
		S-G	No hazard.	0V
		G-D	R340 opened, No hazard.	0V
R354	open		No hazard.	0V
R360	open		No hazard.	0V