



ABNORMAL TEST RESULT

OF MODEL GHA700F

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 : 2/35 ~ 30/35)

(Abnormal Test Result: 31/35 ~ 35/35)

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.	AVR1:**
	Short	F101, F102 opened, No hazard.	AVR1:0
C102	Open	No Hazard.	AVR1:0
	Short	F101, F102 opened, No hazard.	AVR1:0
C103	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C104	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C105	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C106	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C107	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C108	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C109	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C110	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C111	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**
C112	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**



F M E A

Component	Mode	Comment	Output Voltage (V)
C113	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C114	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C115	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C117	Open	Normal operation.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C118	Open	Normal operation.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C119	Open	Normal operation.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C120	Open	Normal operation.	AVR1:*
	Short	No hazard.	AVR1:0
C121	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C123	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C124	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C125	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C126	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C127	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**
C128	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C161	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C162	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C163	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C164	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C165	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C166	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C167	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**
C168	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C170	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C171	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C174	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C185	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C186	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C201	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C202	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C204	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C205	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C211	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C212	Open	Normal operation.	AVR1:*
	Short	See page 31.	
C220	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C221	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C223	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C224	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C225	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C226	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**
C227	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C228	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C229	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C231	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C232	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C233	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C234	Open	No Hazard.	AVR1:0
	Short	See page 31.	
C235	Open	No Hazard.	AVR1:0
	Short	See page 31.	
C236	Open	Normal operation.	AVR1:**
	Short	See page 31.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C241	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C242	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C243	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C244	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C246	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C261	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C262	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C301	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C302	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C304	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C305	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C306	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C307	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C310	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C311	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C312	Open	Normal operation.	AVR1:**
	Short	No hazard.	AVR1:0
C313	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C501	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C502	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C503	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C504	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C505	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C506	Open	Normal operation.	AVR1:**
	Short	See page 31.	
C507	Open	Normal operation.	AVR1:**
	Short	See page 32.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C508	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C509	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C510	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C511	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C512	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C522	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C523	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C524	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C531	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C532	Open	Normal operation.	AVR1:**
	Short	No Hazard.	AVR1:0
C535	Open	Normal operation.	AVR1:**
	Short	See page 32.	
C541	Open	Normal operation.	AVR1:**
	Short	Normal operation.	AVR1:**



F M E A

Component	Mode	Comment	Output Voltage (V)
C542	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C551	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C553	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C554	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C555	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C556	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C557	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
D101	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D102	Open	Normal operation.	AVR1:*
	Short	See page 32.	
D103	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D104	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D107	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
D171	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D201	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D211	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D212	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D213	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D223	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D224	Open	No Hazard.	AVR1:0
	Short	F101, F102 opened, No hazard.	AVR1:0
D241	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D243	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D301	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D302	Open	See page 32.	
	Short	F101, F102 opened, No hazard.	AVR1:0
D303	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
D502	Open		Normal operation.	AVR1:*
	Short		See page 32.	
D512	Open		Normal operation.	AVR1:*
	Short		See page 32.	
D532	Open		See page 32.	
	Short		No Hazard.	AVR1:0
D551	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D552	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
IC101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	F101, F102 opened, No hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Open	1	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	Normal operation.	AVR1:*
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
		11	No Hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		14	No Hazard.	AVR1:0
		15	No Hazard.	AVR1:0
		16	No Hazard.	AVR1:0
	Short	3-4	Normal operation.	AVR1:*
		4-5	Normal operation.	AVR1:*
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
		9-10	Output voltage decreased. No hazard.	AVR1:decreased
		10-11	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0
		14-15	No Hazard.	AVR1:0
		15-16	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC202	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
		11	Normal operation.	AVR1:*
		12	No Hazard.	AVR1:0
		13	No Hazard.	AVR1:0
		14	Normal operation.	AVR1:*
		15	Normal operation.	AVR1:*
		16	Normal operation.	AVR1:*
		17	See page 32.	
		18	Normal operation.	AVR1:*
		19	No Hazard.	AVR1:0
		20	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		4-5	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
IC202	Short	5-6	Normal operation.	AVR1:**
		6-7	No Hazard.	AVR1:0
		7-8	Normal operation.	AVR1:**
		8-9	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0
		11-12	Normal operation.	AVR1:**
		12-13	No Hazard.	AVR1:0
		13-14	Normal operation.	AVR1:**
		14-15	Normal operation.	AVR1:**
		15-16	Normal operation.	AVR1:**
		16-17	Normal operation.	AVR1:**
		17-18	Normal operation.	AVR1:**
		18-19	No Hazard.	AVR1:0
		19-20	No Hazard.	AVR1:0
IC301	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	Normal operation.	AVR1:**
		6	Normal operation.	AVR1:**
		7	Normal operation.	AVR1:**
		8	No Hazard.	AVR1:0
	Short	1-2	No hazard.	AVR1:0
		5-6	Normal operation.	AVR1:**
		6-7	Normal operation.	AVR1:**



F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	7-8	No Hazard.	AVR1:0
IC311	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No hazard.	AVR1:0
		4	No hazard.	AVR1:0
		5	No hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	No Hazard.	AVR1:0
		4-5	No hazard.	AVR1:0
IC501	Open	1	Normal operation.	AVR1:*
		2	See page 32.	
		3	See page 32.	
		4	See page 32.	
		5	See page 32.	
		6	See page 32.	
		7	See page 32.	
		8	See page 32.	
	Short	1-2	Normal operation.	AVR1:*
		2-3	See page 32.	
		3-4	Normal operation.	AVR1:*
		5-6	See page 32.	
		6-7	See page 32.	
		7-8	See page 33.	
IC511	Open	1	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
IC511	Open	2	See page 33.	
		3	See page 33.	
		4	See page 33.	
		5	See page 33.	
		6	See page 33.	
		7	See page 33.	
		8	See page 33.	
	Short	1-2	Normal operation.	AVR1:*
		2-3	See page 33.	
		3-4	Normal operation.	AVR1:*
		5-6	See page 33.	
		6-7	See page 33.	
		7-8	See page 33.	
IC551	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
L101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
L101	Open	4	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	F101, F102 opened, No hazard.	AVR1:0
		3-4	Normal operation.	AVR1:*
L102	Open		No Hazard.	AVR1:0
	Short		F101, F102 opened, No hazard.	AVR1:0
L180	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
L501	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L591	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
PC101	Open	A, K	See page 33.	
		C, E	See page 33.	
	Short	A-K	See page 33.	
		C-E	Normal operation.	AVR1:*
PC201	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC202	Open	A, K		
		C, E		
	Short	A-K	Normal operation.	AVR1:*
		C-E	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
PTH541	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:**
R101	Open	Normal operation.	AVR1:**
R102	Open	Normal operation.	AVR1:**
R103	Open	Normal operation.	AVR1:**
R104	Open	Normal operation.	AVR1:**
R105	Open	Normal operation.	AVR1:**
R106	Open	No Hazard.	AVR1:0
R110	Open	Normal operation.	AVR1:**
R111	Open	See page 33.	
R112	Open	Normal operation.	AVR1:**
R113	Open	Normal operation.	AVR1:**
R114	Open	See page 33.	
R120	Open	No Hazard.	AVR1:0
R121	Open	No Hazard.	AVR1:0
R123	Open	No Hazard.	AVR1:0
R125	Open	No Hazard.	AVR1:0
R126	Open	No Hazard.	AVR1:0
R127	Open	Normal operation.	AVR1:**
R128	Open	Normal operation.	AVR1:**
R129	Open	No Hazard.	AVR1:0
R130	Open	No Hazard.	AVR1:0
R131	Open	No Hazard.	AVR1:0
R132	Open	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R133	Open	No Hazard.	AVR1:0
R134	Open	No Hazard.	AVR1:0
R135	Open	No Hazard.	AVR1:0
R136	Open	No Hazard.	AVR1:0
R137	Open	No Hazard.	AVR1:0
R138	Open	No Hazard.	AVR1:0
R161	Open	No Hazard.	AVR1:0
R162	Open	No Hazard.	AVR1:0
R163	Open	No Hazard.	AVR1:0
R164	Open	No Hazard.	AVR1:0
R165	Open	No Hazard.	AVR1:0
R166	Open	Normal operation.	AVR1:**
R167	Open	Normal operation.	AVR1:**
R168	Open	See page 33.	
R169	Open	Normal operation.	AVR1:**
R170	Open	Normal operation.	AVR1:**
R171	Open	Normal operation.	AVR1:**
R172	Open	No Hazard.	AVR1:0
R173	Open	Normal operation.	AVR1:**
R174	Open	Normal operation.	AVR1:**
R177	Open	Normal operation.	AVR1:**
R179	Open	No Hazard.	AVR1:0
R191	Open	Normal operation.	AVR1:**
R201	Open	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R202	Open	No Hazard.	AVR1:0
R203	Open	Normal operation.	AVR1:*
R211	Open	No Hazard.	AVR1:0
R212	Open	No Hazard.	AVR1:0
R213	Open	Normal operation.	AVR1:*
R221	Open	No Hazard.	AVR1:0
R222	Open	No Hazard.	AVR1:0
R223	Open	No Hazard.	AVR1:0
R224	Open	Normal operation.	AVR1:*
R225	Open	Normal operation.	AVR1:*
R226	Open	Normal operation.	AVR1:*
R227	Open	No Hazard.	AVR1:0
R228	Open	No Hazard.	AVR1:0
R229	Open	Normal operation.	AVR1:*
R231	Open	No Hazard.	AVR1:0
R232	Open	Normal operation.	AVR1:*
R240	Open	No Hazard.	AVR1:0
R241	Open	No Hazard.	AVR1:0
R242	Open	No Hazard.	AVR1:0
R243	Open	No Hazard.	AVR1:0
R244	Open	Normal operation.	AVR1:*
R247	Open	No Hazard.	AVR1:0
R249	Open	No Hazard.	AVR1:0
R251	Open	Normal operation.	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R252	Open	Normal operation.	AVR1:**
R253	Open	No Hazard.	AVR1:0
R261	Open	Normal operation.	AVR1:**
R262	Open	No Hazard.	AVR1:0
R301	Open	No Hazard.	AVR1:0
R302	Open	No Hazard.	AVR1:0
R303	Open	No Hazard.	AVR1:0
R304	Open	Normal operation.	AVR1:**
R305	Open	Normal operation.	AVR1:**
R311	Open	No Hazard.	AVR1:0
R312	Open	Normal operation.	AVR1:**
R313	Open	No hazard.	AVR1:0
R314	Open	No Hazard.	AVR1:0
R501	Open	See page 33.	
R502	Open	See page 33.	
R503	Open	Normal operation.	AVR1:**
R504	Open	Normal operation.	AVR1:**
R505	Open	Normal operation.	AVR1:**
R506	Open	See page 33.	
R511	Open	See page 33.	
R512	Open	See page 33.	
R513	Open	Normal operation.	AVR1:**
R514	Open	Normal operation.	AVR1:**
R515	Open	Normal operation.	AVR1:**



F M E A

Component	Mode	Comment	Output Voltage (V)
R516	Open	See page 33.	
R520	Open	Normal operation.	AVR1:**
R521	Open	Normal operation.	AVR1:**
R532	Open	See page 34.	
R541	Open	Normal operation.	AVR1:**
R542	Open	Normal operation.	AVR1:**
R543	Open	Normal operation.	AVR1:**
R546	Open	Normal operation.	AVR1:**
R551	Open	No Hazard.	AVR1:0
R552	Open	No Hazard.	AVR1:0
R553	Open	Output voltage decreased. No hazard.	AVR1:decreased
R554	Open	Output voltage decreased. No hazard.	AVR1:decreased
R555	Open	Normal operation.	AVR1:**
R556	Open	Normal operation.	AVR1:**
R557	Open	No Hazard.	AVR1:0
R560	Open	Normal operation.	AVR1:**
R561 (Only -24)	Open	No Hazard.	AVR1:0
R562	Open	No Hazard.	AVR1:0
R563	Open	No Hazard.	AVR1:0
R564	Open	Normal operation.	AVR1:**
R565	Open	Normal operation.	AVR1:**
R566	Open	Normal operation.	AVR1:**
R571	Open	Normal operation.	AVR1:**
R572	Open	Normal operation.	AVR1:**



F M E A

Component	Mode		Comment	Output Voltage (V)
R573	Open		Normal operation.	AVR1:*
R574	Open		No Hazard.	AVR1:0
R581	Open		Normal operation.	AVR1:*
SCR101	Open	A	See page 34.	
		K	See page 34.	
		G	See page 34.	
	Short	A-K	Normal operation.	AVR1:*
		A-G	Normal operation.	AVR1:*
		K-G	See page 34.	
SS101	Open		No Hazard.	AVR1:0
	Short		F101, F102 opened, No hazard.	AVR1:0
T201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	See page 34.	
		4	See page 34.	
		5	See page 34.	
		6	See page 34.	
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		3-4	Normal operation.	AVR1:*
		4-5	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
T201	Short	7-8	No Hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
T301	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	See page 34.	
		6	See page 34.	
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	F101, F102 opened, No hazard.	AVR1:0
		3-4	F101, F102 opened, No hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	Normal operation.	AVR1:*
		7-8	No Hazard.	AVR1:0
TH101	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
TH161	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
TR101	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	F101, F102 opened, No hazard.	AVR1:0
	Short	D-S	F101, F102 opened, No hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
TR101	Short	S-G	No Hazard.	AVR1:0
		G-D	F101, F102 opened, No hazard.	AVR1:0
TR103	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
TR104	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
TR106	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0
		B-C	Normal operation.	AVR1:*
TR111	Open	D	See page 34.	
		S	See page 34.	
		G	See page 34.	
	Short	D-S	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
TR111	Short	S-G	See page 34.	
		G-D	Normal operation.	AVR1:*
TR201	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	F101, F102 opened, No hazard.	AVR1:0
	Short	D-S	F101, F102 opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	F101, F102 opened, No hazard.	AVR1:0
TR211	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	F101, F102 opened, No hazard.	AVR1:0
	Short	D-S	F101, F102 opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	F101, F102 opened, No hazard.	AVR1:0
TR220	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	Normal operation.	AVR1:*
		E-B	Normal operation.	AVR1:*
		B-C	Normal operation.	AVR1:*
TR221	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
TR221	Short	E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
TR222	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
TR251	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	AVR1:*
		E-B	No Hazard.	AVR1:0
		B-C	No Hazard.	AVR1:0
TR301	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	AVR1:*
		E-B	No Hazard.	AVR1:0
		B-C	No Hazard.	AVR1:0
TR311	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	No hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
TR311	Short	E-B	No hazard.	AVR1:0
		B-C	No hazard.	AVR1:0
TR501	Open	D	See page 34.	
		S	See page 34.	
		G	See page 34.	
	Short	D-S	No hazard.	AVR1:0
		S-G	See page 34.	
		G-D	No hazard.	AVR1:0
TR511	Open	D	See page 34.	
		S	See page 34.	
		G	See page 34.	
	Short	D-S	No hazard.	AVR1:0
		S-G	See page 34.	
		G-D	No hazard.	AVR1:0
TR541	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
TR542	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
TR542	Short	E-B	No Hazard.	AVR1:0
		B-C	No Hazard.	AVR1:0
TR543	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0
VR501	Open	brush	Output voltage decreased. No hazard.	AVR1:decreased
			Output voltage decreased. No hazard.	AVR1:decreased
	Short		Output voltage increased. No hazard.	AVR1:increased
ZD251	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD252	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD301	Open		See page 34.	
	Short		See page 35.	
ZD501 (Except:24)	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
ZD541	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
ZD542	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
C103	Short	F101, F102 opened, No hazard.	AVR1:0
C104	Short	F101, F102 opened, No hazard.	AVR1:0
C105	Short	F101, F102 opened, No hazard.	AVR1:0
C106	Short	F101, F102 opened, No hazard.	AVR1:0
C107	Short	F101, F102 opened, No hazard.	AVR1:0
C108	Short	F101, F102 opened, No hazard.	AVR1:0
C109	Short	F101, F102 opened, No hazard.	AVR1:0
C110	Short	F101, F102 opened, No hazard.	AVR1:0
C113	Short	Normal operation.	AVR1:*
C114	Short	Normal operation.	AVR1:*
C115	Short	Normal operation.	AVR1:*
C201	Short	F101, F102 opened, No hazard.	AVR1:0
C202	Short	F101, F102 opened, No hazard.	AVR1:0
C211	Short	F101, F102 opened, No hazard.	AVR1:0
C212	Short	F101, F102 opened, No hazard.	AVR1:0
C234	Short	No Hazard.	AVR1:0
C235	Short	No Hazard.	AVR1:0
C236	Short	No Hazard.	AVR1:0
C501	Short	No Hazard.	AVR1:0
C502	Short	No Hazard.	AVR1:0
C503	Short	No Hazard.	AVR1:0
C504	Short	No Hazard.	AVR1:0
C505	Short	No Hazard.	AVR1:0
C506	Short	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C507	Short		No Hazard.	AVR1:0
C508	Short		No Hazard.	AVR1:0
C509	Short		No Hazard.	AVR1:0
C510	Short		No Hazard.	AVR1:0
C511	Short		No Hazard.	AVR1:0
C512	Short		No Hazard.	AVR1:0
C531	Short		No Hazard.	AVR1:0
C535	Short		No Hazard.	AVR1:0
D102	Short		No Hazard.	AVR1:0
D302	Open		Normal operation.	AVR1:*
D502	Short		No Hazard.	AVR1:0
D512	Short		No Hazard.	AVR1:0
D532	Open		No Hazard.	AVR1:0
IC202	Open	17	Normal operation.	AVR1:*
IC501	Open	2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	2-3	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
IC501	Short	7-8	No Hazard.	AVR1:0
IC511	Open	2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	2-3	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
PC101	Open	A, K	Normal operation.	AVR1:**
		C, E	Normal operation.	AVR1:**
	Short	A-K	Normal operation.	AVR1:**
R111	Open		Normal operation.	AVR1:**
R114	Open		Normal operation.	AVR1:**
R168	Open		Normal operation.	AVR1:**
R501	Open		No Hazard.	AVR1:0
R502	Open		No Hazard.	AVR1:0
R506	Open		No Hazard.	AVR1:0
R511	Open		No Hazard.	AVR1:0
R512	Open		No Hazard.	AVR1:0
R516	Open		No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
R532	Open		No Hazard.	AVR1:0
SCR101	Open	A	Normal operation.	AVR1:**
		K	Normal operation.	AVR1:**
		G	Normal operation.	AVR1:**
	Short	K-G	Normal operation.	AVR1:**
T201	Open	3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
T301	Open	5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
TR111	Open	D	Normal operation.	AVR1:**
		S	Normal operation.	AVR1:**
		G	Normal operation.	AVR1:**
	Short	S-G	Normal operation.	AVR1:**
TR501	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	S-G	No Hazard.	AVR1:0
TR511	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	S-G	No Hazard.	AVR1:0
ZD301	Open		Normal operation.	AVR1:**



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
ZD301	Short	Normal operation.	AVR1:*