

ABNORMAL TEST RESULT

OF MODEL CHS4002448

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 : 2/34 ~ 31/34)

(Abnormal Test Result: 32/34 ~ 34/34)

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)
C100	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C101	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C102	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C103	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C104	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C105	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C106	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C107	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C109	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C110	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C111	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C112	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C113	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C114	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C201	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C202	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C203	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C204	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C205	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C206	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C207	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C311	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C312	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C313	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)
C314	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Normal operation.	AVR1:*
C315	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Normal operation.	AVR1:*
C412	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C421	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C431	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C432	Open	No Hazard.	AVR1:0[V]
	Short	No Hazard.	AVR1:0[V]
C434	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C435	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C436	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C437	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C438	Open	No Hazard.	AVR1:0[V]
	Short	No Hazard.	AVR1:0[V]
C439	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]



F M E A

Component	Mode	Comment	Output Voltage (V)
C451	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C452	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C510	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C511	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C512	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C513	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C514	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C515	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C541	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C542	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C550	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C551	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)
C552	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C553	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C554	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C555	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C556	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C557	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C558	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C559	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C562	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C601	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C603	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C604	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]



F M E A

Component	Mode	Comment	Output Voltage (V)
C611	Open	No Hazard.	AVR1:0[V]
	Short	No Hazard.	AVR1:0[V]
C612	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C613	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C614	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C615	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C621	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C705	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C710	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C711	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C720	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0[V]
C721	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C722	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)
C723	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C724	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C725	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C733	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C741	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Normal operation.	AVR1:*
C742	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C743	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C801	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C802	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C803	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C804	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C805	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C806	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C807	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C812	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
C813	Open	No Hazard.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
D101	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D311	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
D312	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
D422	Open	No Hazard.	AVR1:0[V]
	Short	Normal operation.	AVR1:*
D433	Open	No Hazard.	AVR1:0[V]
	Short	No Hazard.	AVR1:0[V]
D551	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
D553	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No Hazard.	AVR1:decreased
D554	Open	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)	
D555	Open	Output voltage decreased.No Hazard.	AVR1:decreased	
	Short	Output voltage decreased.No Hazard.	AVR1:decreased	
D601	Open	No Hazard.	AVR1:0[V]	
	Short	No Hazard.	AVR1:0[V]	
D611	Open	No Hazard.	AVR1:0[V]	
	Short	No Hazard.	AVR1:0[V]	
D621	Open	Output voltage decreased.No Hazard.	AVR1:decreased	
	Short	Normal operation.	AVR1:*	
D623	Open	Normal operation.	AVR1:*	
	Short	Normal operation.	AVR1:*	
D801	Open	Output voltage decreased.No Hazard.	AVR1:decreased	
	Short	Normal operation.	AVR1:*	
IC201	Open	1	Output voltage decreased.No Hazard.	AVR1:decreased
		2	Output voltage decreased.No Hazard.	AVR1:decreased
		3	Output voltage decreased.No Hazard.	AVR1:decreased
		4	Output voltage decreased.No Hazard.	AVR1:decreased
		5	Output voltage decreased.No Hazard.	AVR1:decreased
		6	Output voltage decreased.No Hazard.	AVR1:decreased
		7	Output voltage decreased.No Hazard.	AVR1:decreased
		8	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	1-2	No Hazard.	AVR1:0[V]
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		3-4	Output voltage decreased.No Hazard.	AVR1:decreased
		5-6	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	6-7	Output voltage decreased. No Hazard.	AVR1: decreased
		7-8	Output voltage decreased. No Hazard.	AVR1: decreased
IC202	Open	1	Output voltage decreased. No Hazard.	AVR1: decreased
		2	Output voltage decreased. No Hazard.	AVR1: decreased
		3	Output voltage decreased. No Hazard.	AVR1: decreased
		4	Output voltage decreased. No Hazard.	AVR1: decreased
		5	Output voltage decreased. No Hazard.	AVR1: decreased
		6	Output voltage decreased. No Hazard.	AVR1: decreased
		7	Output voltage decreased. No Hazard.	AVR1: decreased
		8	Output voltage decreased. No Hazard.	AVR1: decreased
	Short	1-2	No Hazard.	AVR1: 0[V]
		2-3	Output voltage decreased. No Hazard.	AVR1: decreased
		3-4	Output voltage decreased. No Hazard.	AVR1: decreased
		5-6	Output voltage decreased. No Hazard.	AVR1: decreased
		6-7	Output voltage decreased. No Hazard.	AVR1: decreased
		7-8	Output voltage decreased. No Hazard.	AVR1: decreased
IC203	Open	1	Output voltage decreased. No Hazard.	AVR1: decreased
		2	Output voltage decreased. No Hazard.	AVR1: decreased
		3	Output voltage decreased. No Hazard.	AVR1: decreased
		4	Output voltage decreased. No Hazard.	AVR1: decreased
		5	Output voltage decreased. No Hazard.	AVR1: decreased
		6	Output voltage decreased. No Hazard.	AVR1: decreased
		7	Output voltage decreased. No Hazard.	AVR1: decreased
		8	Output voltage decreased. No Hazard.	AVR1: decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC203	Short	1-2	Output voltage decreased.No Hazard.	AVR1:decreased
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		3-4	Output voltage decreased.No Hazard.	AVR1:decreased
		5-6	Output voltage decreased.No Hazard.	AVR1:decreased
		6-7	Output voltage decreased.No Hazard.	AVR1:decreased
		7-8	Output voltage decreased.No Hazard.	AVR1:decreased
IC311	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Output voltage decreased.No Hazard.	AVR1:decreased
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		4-5	Normal operation.	AVR1:*
IC312	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0[V]
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		4-5	Output voltage decreased.No Hazard.	AVR1:decreased
IC411	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
IC411	Open	3	No Hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	Normal operation.	AVR1:*
		4-5	No Hazard.	AVR1:0[V]
IC431	Open	1	No Hazard.	AVR1:0[V]
		2	No Hazard.	AVR1:0[V]
		3	No Hazard.	AVR1:0[V]
		4	No Hazard.	AVR1:0[V]
		5	No Hazard.	AVR1:0[V]
		6	No Hazard.	AVR1:0[V]
		7	No Hazard.	AVR1:0[V]
		8	No Hazard.	AVR1:0[V]
	Short	1-2	No Hazard.	AVR1:0[V]
		2-3	No Hazard.	AVR1:0[V]
		3-4	No Hazard.	AVR1:0[V]
		5-6	No Hazard.	AVR1:0[V]
		6-7	No Hazard.	AVR1:0[V]
		7-8	No Hazard.	AVR1:0[V]
IC501	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC501	Open	5	Output voltage decreased. No Hazard.	AVR1:decreased
		6	Output voltage decreased. No Hazard.	AVR1:decreased
		7	Output voltage decreased. No Hazard.	AVR1:decreased
		8	Output voltage decreased. No Hazard.	AVR1:decreased
		9	Output voltage decreased. No Hazard.	AVR1:decreased
		10	Output voltage decreased. No Hazard.	AVR1:decreased
		11	Output voltage decreased. No Hazard.	AVR1:decreased
		12	Output voltage decreased. No Hazard.	AVR1:decreased
		13	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Output voltage decreased. No Hazard.	AVR1:decreased
		2-3	Output voltage decreased. No Hazard.	AVR1:decreased
		3-4	Output voltage decreased. No Hazard.	AVR1:decreased
		4-5	No Hazard.	AVR1:0[V]
		5-6	No Hazard.	AVR1:0[V]
		7-8	No Hazard.	AVR1:0[V]
		8-9	Output voltage decreased. No Hazard.	AVR1:decreased
		9-10	Output voltage decreased. No Hazard.	AVR1:decreased
		11-12	Output voltage decreased. No Hazard.	AVR1:decreased
	12-13	Output voltage decreased. No Hazard.	AVR1:decreased	
IC502	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased
		5	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC502	Open	6	Output voltage decreased. No Hazard.	AVR1:decreased
		7	Output voltage decreased. No Hazard.	AVR1:decreased
		8	Output voltage decreased. No Hazard.	AVR1:decreased
		9	Output voltage decreased. No Hazard.	AVR1:decreased
		10	Output voltage decreased. No Hazard.	AVR1:decreased
		11	Output voltage decreased. No Hazard.	AVR1:decreased
		12	Output voltage decreased. No Hazard.	AVR1:decreased
		13	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Output voltage decreased. No Hazard.	AVR1:decreased
		2-3	Output voltage decreased. No Hazard.	AVR1:decreased
		3-4	Output voltage decreased. No Hazard.	AVR1:decreased
		4-5	No Hazard.	AVR1:0[V]
		5-6	No Hazard.	AVR1:0[V]
		7-8	No Hazard.	AVR1:0[V]
		8-9	Output voltage decreased. No Hazard.	AVR1:decreased
		9-10	Output voltage decreased. No Hazard.	AVR1:decreased
		11-12	Output voltage decreased. No Hazard.	AVR1:decreased
		12-13	Output voltage decreased. No Hazard.	AVR1:decreased
		IC601	Open	1
2	No Hazard.			AVR1:0[V]
3	No Hazard.			AVR1:0[V]
Short	2-3		Normal operation.	AVR1:*
IC611	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC611	Open	3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased
		5	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Output voltage decreased. No Hazard.	AVR1:decreased
		2-3	Output voltage decreased. No Hazard.	AVR1:decreased
		4-5	Output voltage decreased. No Hazard.	AVR1:decreased
IC710	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Normal operation.	AVR1:*
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased
		5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Output voltage decreased. No Hazard.	AVR1:decreased
		9	Output voltage decreased. No Hazard.	AVR1:decreased
		10	Normal operation.	AVR1:*
		11	Normal operation.	AVR1:*
		12	Normal operation.	AVR1:*
		13	Normal operation.	AVR1:*
		14	Output voltage decreased. No Hazard.	AVR1:decreased
		15	Output voltage decreased. No Hazard.	AVR1:decreased
		16	Normal operation.	AVR1:*
		17	No Hazard.	AVR1:0[V]
		18	Normal operation.	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
IC710	Open	19	Normal operation.	AVR1:*
		20	Normal operation.	AVR1:*
		21	Normal operation.	AVR1:*
		22	Normal operation.	AVR1:*
		23	Output voltage decreased.No Hazard.	AVR1:decreased
		24	Normal operation.	AVR1:*
		25	Normal operation.	AVR1:*
		26	Normal operation.	AVR1:*
		27	Output voltage decreased.No Hazard.	AVR1:decreased
		28	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	1-2	Normal operation.	AVR1:*
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		3-4	Normal operation.	AVR1:*
		4-5	Output voltage decreased.No Hazard.	AVR1:decreased
		5-6	Normal operation.	AVR1:*
		6-7	Output voltage decreased.No Hazard.	AVR1:decreased
		8-9	Output voltage decreased.No Hazard.	AVR1:decreased
		9-10	Normal operation.	AVR1:*
		10-11	Normal operation.	AVR1:*
		11-12	Normal operation.	AVR1:*
12-13	Normal operation.	AVR1:*		
13-14	Normal operation.	AVR1:*		
15-16	Output voltage decreased.No Hazard.	AVR1:decreased		
16-17	No Hazard.	AVR1:0[V]		



F M E A

Component	Mode		Comment	Output Voltage (V)
IC710	Short	17-18	Normal operation.	AVR1:*
		18-19	Normal operation.	AVR1:*
		19-20	Normal operation.	AVR1:*
		20-21	No Hazard.	AVR1:0[V]
		22-23	Normal operation.	AVR1:*
		23-24	Normal operation.	AVR1:*
		24-25	Normal operation.	AVR1:*
		25-26	Normal operation.	AVR1:*
		26-27	Normal operation.	AVR1:*
		27-28	Normal operation.	AVR1:*
IC721	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Output voltage decreased.No Hazard.	AVR1:decreased
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		4-5	Output voltage decreased.No Hazard.	AVR1:decreased
IC741	Open	1	Output voltage decreased.No Hazard.	AVR1:decreased
		2	Output voltage decreased.No Hazard.	AVR1:decreased
		3	Output voltage decreased.No Hazard.	AVR1:decreased
		4	Output voltage decreased.No Hazard.	AVR1:decreased
		5	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	1-2	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC741	Short	2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		3-4	Output voltage decreased.No Hazard.	AVR1:decreased
		4-5	Output voltage decreased.No Hazard.	AVR1:decreased
IC742	Open	1	Output voltage decreased.No Hazard.	AVR1:decreased
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	Output voltage decreased.No Hazard.	AVR1:decreased
		2-3	Normal operation.	AVR1:*
		3-4	Normal operation.	AVR1:*
IC802	Open	1	Output voltage decreased.No Hazard.	AVR1:decreased
		2	Normal operation.	AVR1:*
		3	Output voltage decreased.No Hazard.	AVR1:decreased
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	Output voltage decreased.No Hazard.	AVR1:decreased
		4-5	Normal operation.	AVR1:*
PTH421	Open		Normal operation.	AVR1:*
R101	Open		Normal operation.	AVR1:*
R102	Open		Normal operation.	AVR1:*
R103	Open		Normal operation.	AVR1:*

F M E A

Component	Mode	Comment	Output Voltage (V)
R104	Open	Normal operation.	AVR1:*
R111	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R112	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R113	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R114	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R120	Open	No Hazard.	AVR1:0[V]
R201	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R202	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R203	Open	No Hazard.	AVR1:0[V]
R310	Open	Normal operation.	AVR1:*
R311	Open	Normal operation.	AVR1:*
R312	Open	Normal operation.	AVR1:*
R313	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R316	Open	Normal operation.	AVR1:*
R318	Open	Normal operation.	AVR1:*
R319	Open	Normal operation.	AVR1:*
R411	Open	No Hazard.	AVR1:0[V]
R412	Open	Normal operation.	AVR1:*
R414	Open	No Hazard.	AVR1:0[V]
R415	Open	Normal operation.	AVR1:*
R421	Open	Normal operation.	AVR1:*
R430	Open	No Hazard.	AVR1:0[V]
R431	Open	No Hazard.	AVR1:0[V]
R432	Open	No Hazard.	AVR1:0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
R433	Open	Normal operation.	AVR1:*
R434	Open	No Hazard.	AVR1:0[V]
R435	Open	No Hazard.	AVR1:0[V]
R436	Open	No Hazard.	AVR1:0[V]
R437	Open	No Hazard.	AVR1:0[V]
R438	Open	No Hazard.	AVR1:0[V]
R439	Open	No Hazard.	AVR1:0[V]
R440	Open	No Hazard.	AVR1:0[V]
R441	Open	No Hazard.	AVR1:0[V]
R442	Open	Normal operation.	AVR1:*
R443	Open	No Hazard.	AVR1:0[V]
R444	Open	Normal operation.	AVR1:*
R445	Open	No Hazard.	AVR1:0[V]
R446	Open	Normal operation.	AVR1:*
R447	Open	No Hazard.	AVR1:0[V]
R451	Open	No Hazard.	AVR1:0[V]
R501	Open	Normal operation.	AVR1:*
R502	Open	Normal operation.	AVR1:*
R503	Open	Normal operation.	AVR1:*
R504	Open	Normal operation.	AVR1:*
R511	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R512	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R513	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R514	Open	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
R519	Open	Normal operation.	AVR1:*
R529	Open	Normal operation.	AVR1:*
R542	Open	Normal operation.	AVR1:*
R543	Open	Normal operation.	AVR1:*
R552	Open	Normal operation.	AVR1:*
R553	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R556	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R557	Open	Normal operation.	AVR1:*
R601	Open	No Hazard.	AVR1:0[V]
R602	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R610	Open	No Hazard.	AVR1:0[V]
R611	Open	No Hazard.	AVR1:0[V]
R612	Open	No Hazard.	AVR1:0[V]
R613	Open	Normal operation.	AVR1:*
R614	Open	Normal operation.	AVR1:*
R615	Open	No Hazard.	AVR1:0[V]
R616	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R617	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R618	Open	Normal operation.	AVR1:*
R619	Open	Normal operation.	AVR1:*
R620	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R621	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R711	Open	No Hazard.	AVR1:0[V]
R720	Open	Normal operation.	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R721	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R722	Open	Normal operation.	AVR1:*
R723	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R724	Open	Normal operation.	AVR1:*
R725	Open	Normal operation.	AVR1:*
R726	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R727	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R728	Open	Normal operation.	AVR1:*
R729	Open	Normal operation.	AVR1:*
R730	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R731	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R732	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R733	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R741	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R742	Open	Normal operation.	AVR1:*
R743	Open	Normal operation.	AVR1:*
R744	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R745	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R746	Open	Normal operation.	AVR1:*
R801	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R802	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R803	Open	Output voltage decreased.No Hazard.	AVR1:decreased
R804	Open	Normal operation.	AVR1:*
R805	Open	Output voltage decreased.No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
R806	Open		Output voltage decreased.No Hazard.	AVR1:decreased
R807	Open		Output voltage decreased.No Hazard.	AVR1:decreased
R808	Open		Normal operation.	AVR1:*
R809	Open		Normal operation.	AVR1:*
R816	Open		Output voltage decreased.No Hazard.	AVR1:decreased
R818	Open		Output voltage decreased.No Hazard.	AVR1:decreased
R819	Open		Normal operation.	AVR1:*
R820	Open		Normal operation.	AVR1:*
R824	Open		Normal operation.	AVR1:*
R825	Open		Output voltage decreased.No Hazard.	AVR1:decreased
R826	Open		Output voltage decreased.No Hazard.	AVR1:decreased
TH711	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0[V]
TR101	Open	D	See 32 Page.	
		S	See 32 Page.	
		G	See 32 Page.	
	Short	D-S	See 32 Page.	
		S-G	See 32 Page.	
		G-D	See 32 Page.	
TR102	Open	D	See 32 Page.	
		S	See 32 Page.	
		G	See 32 Page.	
	Short	D-S	See 32 Page.	
		S-G	See 32 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR102	Short	G-D	See 32 Page.	
TR103	Open	D	See 32 Page.	
		S	See 32 Page.	
		G	See 33 Page.	
	Short	D-S	See 33 Page.	
		S-G	See 33 Page.	
		G-D	See 33 Page.	
TR104	Open	D	See 33 Page.	
		S	See 33 Page.	
		G	See 33 Page.	
	Short	D-S	See 33 Page.	
		S-G	See 33 Page.	
		G-D	See 33 Page.	
TR311 (1)	Open	C	Output voltage decreased. No Hazard.	AVR1: decreased
		E	Output voltage decreased. No Hazard.	AVR1: decreased
		B	Output voltage decreased. No Hazard.	AVR1: decreased
	Short	C-E	Normal operation.	AVR1: *
		E-B	Output voltage decreased. No Hazard.	AVR1: decreased
		B-C	Output voltage decreased. No Hazard.	AVR1: decreased
TR311 (2)	Open	C	Normal operation.	AVR1: *
		E	Normal operation.	AVR1: *
		B	Normal operation.	AVR1: *
	Short	C-E	Output voltage decreased. No Hazard.	AVR1: decreased
		E-B	Normal operation.	AVR1: *



F M E A

Component	Mode		Comment	Output Voltage (V)
TR311 (2)	Short	B-C	Output voltage decreased.No Hazard.	AVR1:decreased
TR411	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	No Hazard.	AVR1:0[V]
		S-G	Normal operation.	AVR1:*
		G-D	Normal operation.	AVR1:*
TR412	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	Output voltage decreased.No Hazard.	AVR1:decreased
		S-G	Normal operation.	AVR1:*
		G-D	Output voltage decreased.No Hazard.	AVR1:decreased
TR421	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0[V]
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0[V]
TR440	Open	C	No Hazard.	AVR1:0[V]
		E	No Hazard.	AVR1:0[V]
		B	No Hazard.	AVR1:0[V]
	Short	C-E	Normal operation.	AVR1:*
		E-B	No Hazard.	AVR1:0[V]



F M E A

Component	Mode		Comment	Output Voltage (V)
TR440	Short	B-C	Normal operation.	AVR1:*
TR451 (1)	Open	C	No Hazard.	AVR1:0[V]
		E	No Hazard.	AVR1:0[V]
		B	No Hazard.	AVR1:0[V]
	Short	C-E	No Hazard.	AVR1:0[V]
		E-B	No Hazard.	AVR1:0[V]
		B-C	No Hazard.	AVR1:0[V]
TR451 (2)	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	Output voltage decreased.No Hazard.	AVR1:decreased
		E-B	Normal operation.	AVR1:*
		B-C	Output voltage decreased.No Hazard.	AVR1:decreased
TR501	Open	D	See 33 Page.	
		S	See 33 Page.	
		G	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	D-S	See 33 Page.	
		S-G	Output voltage decreased.No Hazard.	AVR1:decreased
		G-D	See 33 Page.	
TR502	Open	D	See 33 Page.	
		S	See 33 Page.	
		G	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	D-S	See 33 Page.	
		S-G	Output voltage decreased.No Hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR502	Short	G-D	See 33 Page.	
TR503	Open	D	See 33 Page.	
		S	See 33 Page.	
		G	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	D-S	See 33 Page.	
		S-G	Output voltage decreased.No Hazard.	AVR1:decreased
		G-D	See 33 Page.	
TR504	Open	D	See 33 Page.	
		S	See 33 Page.	
		G	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	D-S	See 34 Page.	
		S-G	Output voltage decreased.No Hazard.	AVR1:decreased
		G-D	See 34 Page.	
TR541	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	Output voltage decreased.No Hazard.	AVR1:decreased
		S-G	Normal operation.	AVR1:*
		G-D	Output voltage decreased.No Hazard.	AVR1:decreased
TR551	Open	C	Output voltage decreased.No Hazard.	AVR1:decreased
		E	Output voltage decreased.No Hazard.	AVR1:decreased
		B	Output voltage decreased.No Hazard.	AVR1:decreased
	Short	C-E	Output voltage decreased.No Hazard.	AVR1:decreased
		E-B	Output voltage decreased.No Hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR551	Short	B-C	Output voltage decreased. No Hazard.	AVR1: decreased
TR552	Open	D	Output voltage decreased. No Hazard.	AVR1: decreased
		S	Output voltage decreased. No Hazard.	AVR1: decreased
		G	Output voltage decreased. No Hazard.	AVR1: decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1: decreased
		S-G	Output voltage decreased. No Hazard.	AVR1: decreased
		G-D	Output voltage decreased. No Hazard.	AVR1: decreased
TR553	Open	D	Output voltage decreased. No Hazard.	AVR1: decreased
		S	Output voltage decreased. No Hazard.	AVR1: decreased
		G	Output voltage decreased. No Hazard.	AVR1: decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1: decreased
		S-G	Output voltage decreased. No Hazard.	AVR1: decreased
		G-D	Output voltage decreased. No Hazard.	AVR1: decreased
TR554	Open	C	Output voltage decreased. No Hazard.	AVR1: decreased
		E	Output voltage decreased. No Hazard.	AVR1: decreased
		B	Output voltage decreased. No Hazard.	AVR1: decreased
	Short	C-E	Output voltage decreased. No Hazard.	AVR1: decreased
		E-B	Output voltage decreased. No Hazard.	AVR1: decreased
		B-C	Output voltage decreased. No Hazard.	AVR1: decreased
TR611 (1)	Open	C	No Hazard.	AVR1: 0[V]
		E	Normal operation.	AVR1: *
		B	Normal operation.	AVR1: *
	Short	C-E	Normal operation.	AVR1: *
		E-B	Normal operation.	AVR1: *



F M E A

Component	Mode		Comment	Output Voltage (V)
TR611 (1)	Short	B-C	Normal operation.	AVR1:*
TR611 (2)	Open	C	No Hazard.	AVR1:0[V]
		E	No Hazard.	AVR1:0[V]
		B	No Hazard.	AVR1:0[V]
	Short	C-E	Normal operation.	AVR1:*
		E-B	Normal operation.	AVR1:*
		B-C	No Hazard.	AVR1:0[V]
TR612	Open	C	Output voltage decreased. No Hazard.	AVR1:decreased
		E	Output voltage decreased. No Hazard.	AVR1:decreased
		B	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	C-E	Output voltage decreased. No Hazard.	AVR1:decreased
		E-B	Output voltage decreased. No Hazard.	AVR1:decreased
		B-C	Output voltage decreased. No Hazard.	AVR1:decreased
TR621	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR720	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0[V]
		E-B	No Hazard.	AVR1:0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
TR720	Short	B-C	No Hazard.	AVR1:0[V]
TR802	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	Output voltage decreased.No Hazard.	AVR1:decreased
		S-G	Normal operation.	AVR1:*
		G-D	Normal operation.	AVR1:*
ZD411	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD440	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0[V]
ZD451	Open		No Hazard.	AVR1:0[V]
	Short		No Hazard.	AVR1:0[V]
ZD541	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD720	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0[V]



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)	
C101	Short	External Fuse opened, No hazard.	AVR1:0	
C102	Short	External Fuse opened, No hazard.	AVR1:0	
C103	Short	External Fuse opened, No hazard.	AVR1:0	
C104	Short	External Fuse opened, No hazard.	AVR1:0	
C105	Short	External Fuse opened, No hazard.	AVR1:0	
C106	Short	External Fuse opened, No hazard.	AVR1:0	
C109	Short	External Fuse opened, No hazard.	AVR1:0	
C112	Short	External Fuse opened, No hazard.	AVR1:0	
C113	Short	External Fuse opened, No hazard.	AVR1:0	
C114	Short	External Fuse opened, No hazard.	AVR1:0	
TR101	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR102	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR103	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR103	Open	G	Output voltage decreased. No Hazard.	AVR1:decreased
		Short	D-S	Output voltage decreased. No Hazard.
	S-G		Output voltage decreased. No Hazard.	AVR1:decreased
	G-D		Output voltage decreased. No Hazard.	AVR1:decreased
TR104	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR501	Open	D	Output voltage decreased. No Hazard.	
		S	Output voltage decreased. No Hazard.	
	Short	D-S	Output voltage decreased. No Hazard.	
		G-D	Output voltage decreased. No Hazard.	
TR502	Open	D	Output voltage decreased. No Hazard.	
		S	Output voltage decreased. No Hazard.	
	Short	D-S	Output voltage decreased. No Hazard.	
		G-D	Output voltage decreased. No Hazard.	
TR503	Open	D	Output voltage decreased. No Hazard.	
		S	Output voltage decreased. No Hazard.	
	Short	D-S	Output voltage decreased. No Hazard.	
		G-D	Output voltage decreased. No Hazard.	
TR504	Open	D	Output voltage decreased. No Hazard.	
		S	Output voltage decreased. No Hazard.	



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR504	Short	D-S	Output voltage decreased.No Hazard.	
		G-D	Output voltage decreased.No Hazard.	