

## ABNORMAL TEST RESULT

## OF MODEL LHA300F

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 : 2/36 ~ 31/36)

( Abnormal Test Result: 32/36 ~ 36/36)

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 opened, No hazard.	AVR1:0
C102	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C107	Open	See 32 Page.	
	Short	F101 opened, No hazard.	AVR1:0
C110	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C111	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C112	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C113	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C114	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C116	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C118	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C119	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C120	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

## F M E A

Component	Mode	Comment	Output Voltage (V)
C121	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C122	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C123	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C124	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C127	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C128	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C135	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C136	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C137	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C138	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C139	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C140	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
C141	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C201	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C202	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C203	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C204	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C205	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C206	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C207	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C208	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C209	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C211	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C212	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0

## F M E A

Component	Mode	Comment	Output Voltage (V)
C213	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C215	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C216	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C217	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C218	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C219	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C220	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C221	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C222 (Except -48-Y)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C223	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C224	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C225	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

## F M E A

Component	Mode	Comment	Output Voltage (V)
C227	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C228	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C229	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C230	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C231	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
C232	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
C236	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C237	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C238	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C240	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C241	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C242	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

## F M E A

Component	Mode	Comment	Output Voltage (V)
C246	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
C247	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
C248	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
C249	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
C501	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C502	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C505	Open	Normal operation.	AVR1:*
	Short	See 32 Page.	
C506	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C507	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C511	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C512	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C513	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
C514	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C515	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C516	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C517	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C518	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C519	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C520	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C521	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C522	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C523 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C524 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C525 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C526 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C527 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C528 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C529 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C530 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C531 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C532 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C533 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C534 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C601	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
C602	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C607 (Only -12-Y)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
C608 (Except -48-Y)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
D102	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D103	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D104	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D105	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D107	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
D108	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D109	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D110	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D201	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D202	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
D204	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
D205	Open	No Hazard.	AVR1:0
	Short	See 32 Page.	
D207	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D209	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D210	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:*
D214	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D215	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D501	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D502	Open	See 32 Page.	
	Short	Normal operation.	AVR1:*
D503	Open	See 32 Page.	
	Short	See 32 Page.	
D601 (Except -48-Y)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

## F M E A

Component	Mode		Comment	Output Voltage (V)
D602 (Except -48-Y)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
IC101	Open	1	Normal operation.	AVR1:*
		2	No Hazard.	AVR1:0
		3	Normal operation.	AVR1:*
		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	Output voltage decreased. No hazard.	AVR1:decreased
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
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

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Open	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	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
		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
IC501	Open	1	See 32 Page.	
		2	See 32 Page.	
		3	See 32 Page.	
		4	See 32 Page.	
		5	See 32 Page.	
		6	See 32 Page.	
		7	See 33 Page.	
		8	See 33 Page.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC501	Short	1-2	See 33 Page.	
		2-3	Normal operation.	AVR1:*
		3-4	Normal operation.	AVR1:*
		5-6	See 33 Page.	
		6-7	Normal operation.	AVR1:*
		7-8	See 33 Page.	
IC502	Open	1	See 33 Page.	
		2	See 33 Page.	
		3	See 33 Page.	
		4	See 33 Page.	
		5	See 33 Page.	
		6	See 33 Page.	
		7	See 33 Page.	
		8	See 33 Page.	
	Short	1-2	See 33 Page.	
		2-3	Normal operation.	AVR1:*
		3-4	Normal operation.	AVR1:*
		5-6	See 33 Page.	
		6-7	Normal operation.	AVR1:*
		7-8	See 33 Page.	
IC601	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC601	Open	5	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
J101	Open		No Hazard.	AVR1:0
L101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	F101 opened, No hazard.	AVR1:0
		3-4	Normal operation.	AVR1:*
L102	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L103	Open	2	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
	Short	2-6	F101 opened, No hazard.	AVR1:0
		9-10	F101 opened, No hazard.	AVR1:0
L107	Open		See 33 Page.	
	Short		Normal operation.	AVR1:*
L108	Open		See 33 Page.	
	Short		Normal operation.	AVR1:*

## F M E A

Component	Mode		Comment	Output Voltage (V)
L110	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
L501	Open		See 33 Page.	
	Short		Normal operation.	AVR1:*
L502	Open		See 33 Page.	
	Short		Normal operation.	AVR1:*
L503	Open		See 33 Page.	
	Short		Normal operation.	AVR1:*
L510	Open		Normal operation.	AVR1:*
	Short		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	Normal operation.	AVR1:*
		C, E	Normal operation.	AVR1:*
	Short	A-K	Normal operation.	AVR1:*
		C-E	No Hazard.	AVR1:0
PTH201	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:*



## F M E A

Component	Mode	Comment	Output Voltage (V)
R105	Open	Normal operation.	AVR1:*
R111	Open	No Hazard.	AVR1:0
R112	Open	No Hazard.	AVR1:0
R113	Open	No Hazard.	AVR1:0
R114	Open	No Hazard.	AVR1:0
R115	Open	No Hazard.	AVR1:0
R116	Open	No Hazard.	AVR1:0
R117	Open	Normal operation.	AVR1:*
R118	Open	Normal operation.	AVR1:*
R119	Open	Normal operation.	AVR1:*
R120	Open	See 33 Page.	
R121	Open	See 33 Page.	
R122	Open	See 33 Page.	
R123	Open	See 34 Page.	
R124	Open	See 34 Page.	
R125	Open	Normal operation.	AVR1:*
R126	Open	Normal operation.	AVR1:*
R127	Open	Normal operation.	AVR1:*
R128	Open	Normal operation.	AVR1:*
R129	Open	Normal operation.	AVR1:*
R130	Open	Normal operation.	AVR1:*
R131	Open	Normal operation.	AVR1:*
R132	Open	Normal operation.	AVR1:*
R133	Open	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
R134	Open	Normal operation.	AVR1:*
R135	Open	Normal operation.	AVR1:*
R136	Open	Normal operation.	AVR1:*
R137	Open	Normal operation.	AVR1:*
R138	Open	Normal operation.	AVR1:*
R139	Open	Normal operation.	AVR1:*
R140	Open	Normal operation.	AVR1:*
R141	Open	Normal operation.	AVR1:*
R142	Open	Normal operation.	AVR1:*
R143	Open	Normal operation.	AVR1:*
R144	Open	No Hazard.	AVR1:0
R145	Open	Normal operation.	AVR1:*
R146	Open	Normal operation.	AVR1:*
R147	Open	Normal operation.	AVR1:*
R148	Open	See 34 Page.	
R151	Open	No Hazard.	AVR1:0
R152	Open	No Hazard.	AVR1:0
R153	Open	No Hazard.	AVR1:0
R154	Open	No Hazard.	AVR1:0
R155	Open	No Hazard.	AVR1:0
R156	Open	No Hazard.	AVR1:0
R157	Open	Normal operation.	AVR1:*
R158	Open	Normal operation.	AVR1:*
R159	Open	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
R160	Open	Normal operation.	AVR1:*
R161	Open	Normal operation.	AVR1:*
R162	Open	Normal operation.	AVR1:*
R163	Open	Normal operation.	AVR1:*
R201	Open	No Hazard.	AVR1:0
R203	Open	No Hazard.	AVR1:0
R204	Open	Normal operation.	AVR1:*
R205	Open	Normal operation.	AVR1:*
R206	Open	Normal operation.	AVR1:*
R207	Open	Normal operation.	AVR1:*
R208	Open	Normal operation.	AVR1:*
R209	Open	Normal operation.	AVR1:*
R210	Open	Normal operation.	AVR1:*
R211	Open	No Hazard.	AVR1:0
R212	Open	Normal operation.	AVR1:*
R215	Open	Normal operation.	AVR1:*
R216	Open	Normal operation.	AVR1:*
R217	Open	Normal operation.	AVR1:*
R218	Open	Normal operation.	AVR1:*
R222	Open	No Hazard.	AVR1:0
R223	Open	No Hazard.	AVR1:0
R224	Open	Normal operation.	AVR1:*
R226	Open	No Hazard.	AVR1:0
R227	Open	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R228	Open	Output voltage decreased. No hazard.	AVR1:decreased
R229	Open	Normal operation.	AVR1:*
R230	Open	Normal operation.	AVR1:*
R231	Open	No Hazard.	AVR1:0
R232	Open	No Hazard.	AVR1:0
R233	Open	No Hazard.	AVR1:0
R234	Open	No Hazard.	AVR1:0
R235	Open	No Hazard.	AVR1:0
R236	Open	No Hazard.	AVR1:0
R237	Open	No Hazard.	AVR1:0
R238	Open	Normal operation.	AVR1:*
R240	Open	No Hazard.	AVR1:0
R241	Open	Normal operation.	AVR1:*
R242	Open	No Hazard.	AVR1:0
R243	Open	See 34 Page.	
R244	Open	Normal operation.	AVR1:*
R245	Open	No Hazard.	AVR1:0
R246	Open	See 34 Page.	
R247	Open	Normal operation.	AVR1:*
R249	Open	Output voltage decreased. No hazard.	AVR1:decreased
R250	Open	Normal operation.	AVR1:*
R251	Open	Normal operation.	AVR1:*
R252	Open	Normal operation.	AVR1:*
R253	Open	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
R254	Open	Normal operation.	AVR1:*
R255	Open	Output voltage decreased. No hazard.	AVR1:decreased
R257	Open	Output voltage decreased. No hazard.	AVR1:decreased
R258	Open	Normal operation.	AVR1:*
R260	Open	Output voltage decreased. No hazard.	AVR1:decreased
R261	Open	Normal operation.	AVR1:*
R262	Open	Normal operation.	AVR1:*
R263	Open	Normal operation.	AVR1:*
R264	Open	No Hazard.	AVR1:0
R265	Open	Normal operation.	AVR1:*
R266	Open	Normal operation.	AVR1:*
R267	Open	Normal operation.	AVR1:*
R268	Open	Normal operation.	AVR1:*
R269	Open	No Hazard.	AVR1:0
R270	Open	Normal operation.	AVR1:*
R271	Open	Normal operation.	AVR1:*
R272	Open	No Hazard.	AVR1:0
R273	Open	No Hazard.	AVR1:0
R274	Open	No Hazard.	AVR1:0
R275	Open	No Hazard.	AVR1:0
R276	Open	No Hazard.	AVR1:0
R277	Open	Normal operation.	AVR1:*
R278	Open	Normal operation.	AVR1:*
R279	Open	Normal operation.	AVR1:*

F M E A

Component	Mode	Comment	Output Voltage (V)
R281	Open	Normal operation.	AVR1:*
R501	Open	See 34 Page.	
R502	Open	See 34 Page.	
R503	Open	Normal operation.	AVR1:*
R504	Open	See 34 Page.	
R505	Open	See 34 Page.	
R506	Open	See 34 Page.	
R507	Open	See 34 Page.	
R508	Open	Normal operation.	AVR1:*
R509	Open	See 34 Page.	
R510	Open	See 34 Page.	
R511	Open	See 34 Page.	
R512	Open	See 34 Page.	
R514	Open	Normal operation.	AVR1:*
R515	Open	Normal operation.	AVR1:*
R516	Open	Normal operation.	AVR1:*
R517	Open	Normal operation.	AVR1:*
R518	Open	See 34 Page.	
R519	Open	See 34 Page.	
R520 (Only -12-Y)	Open	Normal operation.	AVR1:*
R521	Open	Normal operation.	AVR1:*
R522 (Only -12-Y)	Open	Normal operation.	AVR1:*
R523	Open	Normal operation.	AVR1:*
R524	Open	Normal operation.	AVR1:*

## F M E A

Component	Mode	Comment	Output Voltage (V)
R526	Open	Normal operation.	AVR1:*
R528 (Only -12-Y)	Open	Normal operation.	AVR1:*
R530 (Only -12-Y)	Open	Normal operation.	AVR1:*
R531 (Only -12-Y)	Open	Normal operation.	AVR1:*
R533	Open	Normal operation.	AVR1:*
R534 (Only -12-Y)	Open	Normal operation.	AVR1:*
R535	Open	Normal operation.	AVR1:*
R536 (Only -12-Y)	Open	Normal operation.	AVR1:*
R537	Open	Normal operation.	AVR1:*
R538 (Only -12-Y)	Open	Normal operation.	AVR1:*
R539	Open	Normal operation.	AVR1:*
R540 (Only -12-Y)	Open	Normal operation.	AVR1:*
R601	Open	Normal operation.	AVR1:*
R602	Open	Normal operation.	AVR1:*
R603	Open	Output voltage decreased. No hazard.	AVR1:decreased
R604	Open	No Hazard.	AVR1:0
R605 (Except -48-Y)	Open	No Hazard.	AVR1:0
R606	Open	Output voltage decreased. No hazard.	AVR1:decreased
R607 (Except -48-Y)	Open	Normal operation.	AVR1:*
R608 (Except -48-Y)	Open	Normal operation.	AVR1:*
R609	Open	No Hazard.	AVR1:0
R610	Open	No Hazard.	AVR1:0
R611	Open	Output voltage decreased. No hazard.	AVR1:decreased
SK101	Open	Normal operation.	AVR1:*

## F M E A

Component	Mode		Comment	Output Voltage (V)
SK101	Short		F101 opened, No hazard.	AVR1:0
SS101	Open		No Hazard.	AVR1:0
	Short		F101 opened, No hazard.	AVR1:0
T201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	See 34 Page.	
		6	See 34 Page.	
		7	See 34 Page.	
		8	See 34 Page.	
		9	See 34 Page.	
		10	See 34 Page.	
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TH102	Open		No Hazard.	AVR1:0



## F M E A

Component	Mode		Comment	Output Voltage (V)
TH102	Short		Normal operation.	AVR1:*
TR101	Open	D	See 34 Page.	
		S	See 35 Page.	
		G	See 35 Page.	
	Short	D-S	See 35 Page.	
		S-G	See 35 Page.	
		G-D	See 35 Page.	
TR102	Open	D	See 35 Page.	
		S	See 35 Page.	
		G	See 35 Page.	
	Short	D-S	See 35 Page.	
		S-G	See 35 Page.	
		G-D	See 35 Page.	
TR103	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	AVR1:*
		G-D	No Hazard.	AVR1:0
TR104	Open	1 (1)	Normal operation.	AVR1:*
		1 (2)	Normal operation.	AVR1:*
		2 (3)	See 35 Page.	
		2 (4)	See 35 Page.	
		2 (5)	See 35 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR104	Open	1 (6)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	See 35 Page.	
		1-2 (2-3)	Normal operation.	AVR1:*
		2-2 (4-5)	See 35 Page.	
		2-1 (5-6)	Normal operation.	AVR1:*
TR201	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	See 35 Page.	
		E-B	No Hazard.	AVR1:0
		B-C	Normal operation.	AVR1:*
TR202	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
TR203	Open	1 (1)	Normal operation.	AVR1:*
		1 (2)	Normal operation.	AVR1:*
		2 (3)	Normal operation.	AVR1:*
		2 (4)	Normal operation.	AVR1:*
		2 (5)	Normal operation.	AVR1:*
		1 (6)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	Normal operation.	AVR1:*

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR203	Short	1-2 (2-3)	Normal operation.	AVR1:*
		2-2 (4-5)	Normal operation.	AVR1:*
		2-1 (5-6)	Normal operation.	AVR1:*
TR204	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	AVR1:*
		G-D	Normal operation.	AVR1:*
TR207	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
TR208	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	See 35 Page.	
		S-G	No Hazard.	AVR1:0
		G-D	See 35 Page.	
TR209	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR209	Short	D-S	See 35 Page.	
		S-G	No Hazard.	AVR1:0
		G-D	See 35 Page.	
TR210	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	Normal operation.	AVR1:*
		S-G	Normal operation.	AVR1:*
		G-D	Output voltage decreased. No hazard.	AVR1:decreased
TR211	Open	1 (1)	Normal operation.	AVR1:*
		1 (2)	Normal operation.	AVR1:*
		2 (3)	Normal operation.	AVR1:*
		2 (4)	Normal operation.	AVR1:*
		2 (5)	Normal operation.	AVR1:*
		1 (6)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	Normal operation.	AVR1:*
		1-2 (2-3)	No Hazard.	AVR1:0
		2-2 (4-5)	Normal operation.	AVR1:*
		2-1 (5-6)	No Hazard.	AVR1:0
TR212	Open	1 (1)	Normal operation.	AVR1:*
		1 (2)	Normal operation.	AVR1:*
		2 (3)	Normal operation.	AVR1:*
		2 (4)	Normal operation.	AVR1:*
		2 (5)	Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
TR212	Open	1 (6)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	Normal operation.	AVR1:*
		1-2 (2-3)	Normal operation.	AVR1:*
		2-2 (4-5)	Normal operation.	AVR1:*
		2-1 (5-6)	Normal operation.	AVR1:*
TR213	Open	1 (1)	Normal operation.	AVR1:*
		1 (2)	Normal operation.	AVR1:*
		2 (3)	Normal operation.	AVR1:*
		2 (4)	Normal operation.	AVR1:*
		2 (5)	Normal operation.	AVR1:*
		1 (6)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	Normal operation.	AVR1:*
		1-2 (2-3)	Normal operation.	AVR1:*
		2-1 (5-6)	Normal operation.	AVR1:*
TR501	Open	D	Output voltage decreased. No hazard.	AVR1:decreased
		S	Output voltage decreased. No hazard.	AVR1:decreased
		G	See 35 Page.	
	Short	D-S	No Hazard.	AVR1:0
		S-G	See 35 Page.	
		G-D	No Hazard.	AVR1:0
TR502	Open	D	Output voltage decreased. No hazard.	AVR1:decreased
		S	Output voltage decreased. No hazard.	AVR1:decreased
		G	See 35 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR502	Short	D-S	No Hazard.	AVR1:0
		S-G	See 36 Page.	
		G-D	No Hazard.	AVR1:0
TR503	Open	C	See 36 Page.	
		E	See 36 Page.	
		B	See 36 Page.	
	Short	C-E	Normal operation.	AVR1:*
		E-B	See 36 Page.	
		B-C	Normal operation.	AVR1:*
VR601	Open	brush	Output voltage decreased. No hazard.	AVR1:decreased
			Output voltage decreased. No hazard.	AVR1:decreased
	Short		No Hazard.	AVR1:0
ZD101	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD201	Open		See 36 Page.	
	Short		No Hazard.	AVR1:0
ZD202	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD203	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD204	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD501	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
ZD502 (Except -12-Y)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
ZD503	Open	Normal operation.	AVR1:*
	Short	See 36 Page.	
ZD601 (Only -48-Y)	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0

## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C107	Open		Normal operation.	AVR1:*
C246	Short		Normal operation.	AVR1:*
C247	Short		Normal operation.	AVR1:*
C248	Short		Normal operation.	AVR1:*
C249	Short		Normal operation.	AVR1:*
C501	Short		Normal operation.	AVR1:*
C502	Short		Normal operation.	AVR1:*
C505	Short		Normal operation.	AVR1:*
D104	Open		Normal operation.	AVR1:*
D105	Open		Normal operation.	AVR1:*
D107	Short		No hazard.	AVR1:0
D205	Short		F101 opened, No hazard.	AVR1:0
D207	Open		Normal operation.	AVR1:*
D209	Open		Normal operation.	AVR1:*
D501	Open		Normal operation.	AVR1:*
D502	Open		Normal operation.	AVR1:*
D503	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
IC501	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*



## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
IC501	Open	7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		5-6	Normal operation.	AVR1:*
		7-8	Normal operation.	AVR1:*
IC502	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		5-6	Normal operation.	AVR1:*
		7-8	Normal operation.	AVR1:*
L107	Open		Normal operation.	AVR1:*
L108	Open		Normal operation.	AVR1:*
L501	Open		No hazard.	AVR1:0
L502	Open		Normal operation.	AVR1:*
L503	Open		Normal operation.	AVR1:*
R120	Open		Normal operation.	AVR1:*
R121	Open		Normal operation.	AVR1:*
R122	Open		Normal operation.	AVR1:*

## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
R123	Open		Normal operation.	AVR1:*
R124	Open		Normal operation.	AVR1:*
R148	Open		Normal operation.	AVR1:*
R243	Open		Normal operation.	AVR1:*
R246	Open		Normal operation.	AVR1:*
R501	Open		Normal operation.	AVR1:*
R502	Open		Normal operation.	AVR1:*
R504	Open		Normal operation.	AVR1:*
R505	Open		Normal operation.	AVR1:*
R506	Open		Normal operation.	AVR1:*
R507	Open		Normal operation.	AVR1:*
R509	Open		Normal operation.	AVR1:*
R510	Open		Normal operation.	AVR1:*
R511	Open		Normal operation.	AVR1:*
R512	Open		Normal operation.	AVR1:*
R518	Open		Normal operation.	AVR1:*
R519	Open		Normal operation.	AVR1:*
T201	Open	5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	Normal operation.	AVR1:*
		10	Normal operation.	AVR1:*
TR101	Open	D	Normal operation.	AVR1:*

## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR101	Open	S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	Normal operation.	AVR1:*
		G-D	F101 opened, No hazard.	AVR1:0
TR102	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	Normal operation.	AVR1:*
	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	Normal operation.	AVR1:*
		G-D	F101 opened, No hazard.	AVR1:0
TR104	Open	2 (3)	Normal operation.	AVR1:*
		2 (4)	Normal operation.	AVR1:*
		2 (5)	Normal operation.	AVR1:*
	Short	1-1 (1-2)	Normal operation.	AVR1:*
		2-2 (4-5)	Normal operation.	AVR1:*
TR201	Short	C-E	Normal operation.	AVR1:*
TR208	Short	D-S	F101 opened, No hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR209	Short	D-S	F101 opened, No hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR501	Open	G	Normal operation.	AVR1:*
	Short	S-G	Normal operation.	AVR1:*
TR502	Open	G	Normal operation.	AVR1:*



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR502	Short	S-G	Normal operation.	AVR1:*
TR503	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	E-B	Normal operation.	AVR1:*
ZD201	Open		Normal operation.	AVR1:*
ZD503	Short		Normal operation.	AVR1:*