

ABNORMAL TEST RESULT

OF MODEL LHA50F

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 : 2/14 ~ 12/14)

(Abnormal Test Result: 13/14 ~ 14/14)

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
C201	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	F101 opened, 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	Output voltage decreased. No hazard.	AVR1:decreased
C205	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C207	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
C208 (Only -3R3)	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C211	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C212	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C213	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C221	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C231	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Normal operation.	AVR1:*
C251	Open	Normal operation.	AVR1:*
	Short	See 13 Page.	
C252	Open	See 13 Page.	
	Short	Normal operation.	AVR1:*
C253	Open	See 13 Page.	
	Short	Normal operation.	AVR1:*
C281	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C282	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C501	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C502	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C503	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C504	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C505 (Except:-36)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C506 (Except:-24, -36)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
C507 (Except: -24, -36)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C508 (Only -12, -15, -5)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C509 (Only -12, -15, -5)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C510 (Only -15)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C511 (Only -15, -5)	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C531	Open	See 13 Page.	
	Short	See 13 Page.	
C601 (Only -12, -3R3, -5)	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C602	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C605	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C606	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D201	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
D203	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
D211	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D212	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D221	Open		Normal operation.	AVR1:*
	Short		See 12 Page.	
D231	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
D511 (Only -15)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D531 (Only -12, -3R3, -5)	Open		See 13 Page.	
	Short		See 13 Page.	
IC201	Open	1	Output voltage decreased. No hazard.	AVR1:decreased
		2	Output voltage decreased. No hazard.	AVR1:decreased
		3	F101 opened, No hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		8	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	F101 opened, No hazard.	AVR1:0
		5-6	F101 opened, No hazard.	AVR1:0
IC501 (Only -12, -3R3, -5)	Open	1	See 13 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC501 (Only -12, -3R3, -5)	Open	2	See 13 Page.	
		3	See 13 Page.	
		4	See 13 Page.	
		5	See 13 Page.	
		6	See 13 Page.	
	Short	1-2	See 13 Page.	
		2-3	Normal operation.	AVR1:*
		4-5	See 13 Page.	
		5-6	See 13 Page.	
IC601	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Output voltage decreased. No hazard.	AVR1:decreased
		4	Output voltage decreased. No hazard.	AVR1:decreased
		5	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	No Hazard.	AVR1:0
		3-4	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
		4	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	F101 opened, No hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
L101	Short	3-4	Normal operation.	AVR1:*
L501	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
PC201	Open	A, K	Output voltage decreased. No hazard.	AVR1:decreased
		C, E	Output voltage decreased. No hazard.	AVR1:decreased
	Short	A-K	Output voltage decreased. No hazard.	AVR1:decreased
		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
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:*
R201	Open		Normal operation.	AVR1:*
R203	Open		No Hazard.	AVR1:0
R204	Open		No Hazard.	AVR1:0
R205	Open		Normal operation.	AVR1:*
R206	Open		See 13 Page.	
R208 (Only -3R3)	Open		Output voltage decreased. No hazard.	AVR1:decreased
R210	Open		No Hazard.	AVR1:0
R211	Open		No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R212	Open	No Hazard.	AVR1:0
R213	Open	Normal operation.	AVR1:*
R214	Open	Normal operation.	AVR1:*
R221	Open	Output voltage decreased. No hazard.	AVR1:decreased
R223	Open	Normal operation.	AVR1:*
R224	Open	Output voltage decreased. No hazard.	AVR1:decreased
R231	Open	Normal operation.	AVR1:*
R232	Open	Normal operation.	AVR1:*
R233	Open	Normal operation.	AVR1:*
R234	Open	Normal operation.	AVR1:*
R235	Open	Normal operation.	AVR1:*
R236	Open	Output voltage decreased. No hazard.	AVR1:decreased
R238	Open	Normal operation.	AVR1:*
R239	Open	Output voltage decreased. No hazard.	AVR1:decreased
R243	Open	Normal operation.	AVR1:*
R251	Open	Normal operation.	AVR1:*
R252	Open	Normal operation.	AVR1:*
R253	Open	Normal operation.	AVR1:*
R254	Open	Normal operation.	AVR1:*
R255	Open	Normal operation.	AVR1:*
R256	Open	Normal operation.	AVR1:*
R257	Open	Normal operation.	AVR1:*
R258	Open	Normal operation.	AVR1:*
R259	Open	Normal operation.	AVR1:*

F M E A

Component	Mode	Comment	Output Voltage (V)
R281	Open	Normal operation.	AVR1:*
R282	Open	Normal operation.	AVR1:*
R283	Open	Normal operation.	AVR1:*
R501	Open	Normal operation.	AVR1:*
R502	Open	Normal operation.	AVR1:*
R531 (Only -12, -3R3, -5)	Open	See 13 Page.	
R532 (Only -12, -3R3, -5)	Open	Normal operation.	AVR1:*
R533 (Only -12, -3R3, -5)	Open	See 13 Page.	
R534 (Only -12, -3R3, -5)	Open	See 13 Page.	
R535 (Only -12, -3R3, -5)	Open	See 13 Page.	
R536 (Only -12, -3R3, -5)	Open	See 13 Page.	
R537 (Only -12, -3R3, -5)	Open	See 13 Page.	
R538 (Only -12, -3R3, -5)	Open	See 13 Page.	
R539 (Only -12, -3R3, -5)	Open	See 14 Page.	
R540 (Only -12, -3R3, -5)	Open	See 14 Page.	
R601 (Only -12, -3R3, -5)	Open	Output voltage decreased. No hazard.	AVR1:decreased
R602	Open	Output voltage decreased. No hazard.	AVR1:decreased
R603 (Except:-3R3, -5)	Open	Output voltage decreased. No hazard.	AVR1:decreased
R604	Open	Output voltage decreased. No hazard.	AVR1:decreased
R605 (Except -36, -48)	Open	Output voltage decreased. No hazard.	AVR1:decreased
R606	Open	No Hazard.	AVR1:0
R607	Open	No Hazard.	AVR1:0
R608	Open	No Hazard.	AVR1:0
R609 (Except:-3R3)	Open	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
R611	Open		No Hazard.	AVR1:0
R614 (Only -3R3, -5)	Open		Output voltage decreased. No hazard.	AVR1:decreased
R701	Open		Normal operation.	AVR1:*
R702	Open		Normal operation.	AVR1:*
R703	Open		Normal operation.	AVR1:*
SS101	Open		No Hazard.	AVR1:0
	Short		F101 opened, No hazard.	AVR1:0
SS501 (Except:12, -3R3, -5)	Open		No Hazard.	AVR1:0
	Short		Output voltage decreased. No hazard.	AVR1:decreased
T101	Open	2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	See 14 Page.	
		10	Normal operation.	AVR1:*
		11	Normal operation.	AVR1:*
		12	See 14 Page.	
	Short	2-3	F101 opened, No hazard.	AVR1:0
		8-10	F101 opened, No hazard.	AVR1:0
		9-12	F101 opened, No hazard.	AVR1:0
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
TR201	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	F101 opened, No hazard.	AVR1:0
	Short	D-S	See 14 Page.	
		S-G	No Hazard.	AVR1:0
		G-D	See 14 Page.	
TR231	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	Output voltage decreased. No hazard.	AVR1:decreased
		B-C	Normal operation.	AVR1:*
TR251	Open	D	Normal operation.	AVR1:*
		S	Normal operation.	AVR1:*
		G	See 14 Page.	
	Short	D-S	See 14 Page.	
		S-G	Normal operation.	AVR1:*
		G-D	See 14 Page.	
TR281	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

F M E A

Component	Mode		Comment	Output Voltage (V)
TR501	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	See 14 Page.	
	Short	D-S	Output voltage decreased. No hazard.	AVR1:decreased
		S-G	See 14 Page.	
		G-D	Output voltage decreased. No hazard.	AVR1:decreased
VR601 (Only -3R3)	Open	brush	Output voltage increased. No hazard.	AVR1:increased
			No Hazard.	AVR1:0
	Short		Output voltage decreased. No hazard.	AVR1:decreased
ZD231	Open		Output voltage decreased. No hazard.	AVR1:decreased
	Short		Normal operation.	AVR1:*
ZD251	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD601 (Only -36, -48)	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
ZD701	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD702 (Only -24, -36, -48)	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C251	Short		No Hazard.	AVR1:0
C252	Open		No Hazard.	AVR1:0
C253	Open		No Hazard.	AVR1:0
C531	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D531	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:*
	Short	1-2	Normal operation.	AVR1:*
		4-5	Normal operation.	AVR1:*
		5-6	Normal operation.	AVR1:*
R206	Open		Normal operation.	AVR1:*
R531	Open		Normal operation.	AVR1:*
R533	Open		Normal operation.	AVR1:*
R534	Open		Normal operation.	AVR1:*
R535	Open		Normal operation.	AVR1:*
R536	Open		Normal operation.	AVR1:*
R537	Open		Normal operation.	AVR1:*
R538	Open		Normal operation.	AVR1:*

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
R539	Open		Normal operation.	AVR1:*
R540	Open		Normal operation.	AVR1:*
T101	Open	9	Normal operation.	AVR1:*
		12	Normal operation.	AVR1:*
TR201	Short	D-S	F101 opened. No hazard.	AVR1:0
		G-D	F101 opened. No hazard.	AVR1:0
TR251	Open	G	No Hazard.	AVR1:0
	Short	D-S	No Hazard.	AVR1:0
		G-D	No Hazard.	AVR1:0
TR501	Open	G	Normal operation.	AVR1:*
	Short	S-G	Normal operation.	AVR1:*