

ABNORMAL TEST RESULT

OF MODEL MMC100B

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 : 2/16 ~ 14/16)

(Abnormal Test Result: 15/16 ~ 16/16)

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.

「*」 shows no change of output voltage .

F M E A

Component	Mode	Comment	Output Voltage (V)
C1	Open	Normal operation.	
	Short	F1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
C2	Open	Normal operation.	
	Short	F1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
C6	Open	See 15 Page.	
	Short	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
C7	Open	Normal operation.	
	Short	Normal operation.	
C8	Open	Normal operation.	
	Short	Normal operation.	
C9	Open	Normal operation.	
	Short	Normal operation.	
C10	Open	No Hazard.	AVR1:0 AVR2:0 AVR3:0
	Short	No Hazard.	AVR1:0 AVR2:0 AVR3:0
C11	Open	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
	Short	Normal operation.	
C12	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0 AVR3:0
C13	Open	Normal operation.	
	Short	Normal operation.	
C14	Open	Normal operation.	
	Short	Normal operation.	
C15	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0 AVR3:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C16	Open	Normal operation.	
	Short	Normal operation.	
C51	Open	Normal operation.	
	Short	Normal operation.	
C53	Open	Normal operation.	
	Short	See 15 Page.	
C54	Open	Normal operation.	
	Short	See 15 Page.	
C55	Open	Normal operation.	
	Short	Normal operation.	
C57	Open	Normal operation.	
	Short	Normal operation.	
C58	Open	See 15 Page.	
	Short	See 15 Page.	
C59	Open	Normal operation.	
	Short	Normal operation.	
C60	Open	Normal operation.	
	Short	See 15 Page.	
C62	Open	Normal operation.	
	Short	See 15 Page.	
C63	Open	Normal operation.	
	Short	Normal operation.	
C64	Open	Normal operation.	
	Short	See 15 Page.	

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Component	Mode	Comment	Output Voltage (V)
C65	Open	Normal operation.	
	Short	See 15 Page.	
C66	Open	Normal operation.	
	Short	Normal operation.	
C67	Open	Normal operation.	
	Short	Normal operation.	
C68	Open	Normal operation.	
	Short	Normal operation.	
C69	Open	Normal operation.	
	Short	Normal operation.	
C72	Open	Normal operation.	
	Short	Normal operation.	
C73	Open	Normal operation.	
	Short	Normal operation.	
C74	Open	Normal operation.	
	Short	Normal operation.	
C75	Open	Normal operation.	
	Short	Normal operation.	
C76	Open	Normal operation.	
	Short	Normal operation.	
C77	Open	Normal operation.	
	Short	Normal operation.	
C78	Open	Normal operation.	
	Short	Normal operation.	

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Component	Mode		Comment	Output Voltage (V)
C79	Open		Normal operation.	
	Short		Normal operation.	
C80	Open		Normal operation.	
	Short		Normal operation.	
C81	Open		Normal operation.	
	Short		Normal operation.	
C82	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
D1	Open		R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
	Short		Normal operation.	
D2	Open		Normal operation.	
	Short		R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
D3	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
	Short		No Hazard.	AVR1:0 AVR2:0 AVR3:0
D4	Open		Normal operation.	
	Short		Normal operation.	
D51	Open		See 15 Page.	
	Short		Normal operation.	
D52	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:0 AVR2:0 AVR3:decreased
IC1	Open	1	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		2	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		3	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		4	Normal operation.	

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Component	Mode		Comment	Output Voltage (V)	
IC1	Open	5	Normal operation.		
		6	Normal operation.		
		7	Normal operation.		
		8	Normal operation.		
		9	Normal operation.		
		10	No Hazard.	AVR1:0 AVR2:0 AVR3:0	
		11	No Hazard.	AVR1:0 AVR2:0 AVR3:0	
		12	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased	
		13	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased	
		14	Normal operation.		
		15	Normal operation.		
		16	Normal operation.		
		17	Normal operation.		
		18	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased	
		19	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased	
		20	No Hazard.	AVR1:0 AVR2:0 AVR3:0	
		Short	1-2	Normal operation.	
			2-3	No Hazard.	AVR1:0 AVR2:0 AVR3:0
			3-4	Normal operation.	
			4-5	Normal operation.	
5-6	Normal operation.				
6-7	Normal operation.				
7-8	Normal operation.				
8-9	Normal operation.				

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Component	Mode		Comment	Output Voltage (V)
IC1	Short	9-10	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		11-12	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		12-13	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		13-14	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		14-15	Normal operation.	
		15-16	Normal operation.	
		16-17	Normal operation.	
		17-18	Normal operation.	
		18-19	Normal operation.	
		19-20	No Hazard.	AVR1:0 AVR2:0 AVR3:0
IC50	Open	K	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		A	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		R	No Hazard.	AVR1:0 AVR2:0 AVR3:0
	Short	A-K	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		K-R	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		R-A	No Hazard.	AVR1:0 AVR2:0 AVR3:0
IC51	Open	K	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
		A	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
		R	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
	Short	A-K	See 15 Page.	
		K-R	See 15 Page.	
		R-A	See 15 Page.	
IC52	Open	1	No Hazard.	AVR1:* AVR2:* AVR3:0
		2	No Hazard.	AVR1:* AVR2:* AVR3:0

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Component	Mode		Comment	Output Voltage (V)
IC52	Open	3	No Hazard.	AVR1:* AVR2:* AVR3:0
	Short	1-2	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		2-3	Output voltage decreased. No hazard.	AVR1:0 AVR2:0 AVR3:decreased
L1	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
	Short		Normal operation.	
L51	Open	2	Normal operation.	
		3	Normal operation.	
		4	Normal operation.	
		5	Normal operation.	
		7	No Hazard.	AVR1:* AVR2:* AVR3:0
		8	No Hazard.	AVR1:* AVR2:* AVR3:0
	Short	2-3	Normal operation.	
		3-4	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		4-5	Normal operation.	
		7-8	Output voltage decreased. No hazard.	AVR1:* AVR2:0 AVR3:decreased
L52	Open		No Hazard.	AVR1:* AVR2:0 AVR3:*
	Short		Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
L53	Open		No Hazard.	AVR1:* AVR2:0 AVR3:*
	Short		Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
L58	Open		No Hazard.	AVR1:* AVR2:* AVR3:0
	Short		Normal operation.	
LED51	Open		Normal operation.	
	Short		Normal operation.	
PC1	Open	A, K	No Hazard.	AVR1:0 AVR2:0 AVR3:0



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Component	Mode		Comment	Output Voltage (V)	
PC1	Open	C, E	No Hazard.	AVR1:0 AVR3:0	AVR2:0
		A-K	No Hazard.	AVR1:0 AVR3:0	AVR2:0
	Short	C-E	No Hazard.	AVR1:0 AVR3:0	AVR2:0
PC2	Open	A, K	Normal operation.		
		C, E	Normal operation.		
	Short	A-K	Normal operation.		
		C-E	No Hazard.	AVR1:0 AVR3:0	AVR2:0
SCR1	Open	T1	R1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
		T2	R1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
		G	R1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
	Short	T1-T2	Normal operation.		
		T1-G	R1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
		T2-G	R1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
SS1	Open	+	No Hazard.	AVR1:0 AVR3:0	AVR2:0
		-	No Hazard.	AVR1:0 AVR3:0	AVR2:0
		AC	No Hazard.	AVR1:0 AVR3:0	AVR2:0
	Short	+AC	F1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
		AC-AC	F1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
		--AC	F1 opened, No hazard.	AVR1:0 AVR3:0	AVR2:0
SS51	Open	Cathode	No Hazard.	AVR1:0 AVR3:*	AVR2:*
		Anode (for)	No Hazard.	AVR1:0 AVR3:*	AVR2:*
		Anode (fly)	Output voltage decreased. No hazard.	AVR1:decreased AVR2:* AVR3:*	
	Short	Cathode -Anode (for)	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased	
		Cathode -Anode (fly)	Output voltage decreased. No hazard.	AVR1:0 AVR2, AVR3:decreased	

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Component	Mode		Comment	Output Voltage (V)
SS52	Open	Cathode	No Hazard.	AVR1:* AVR2:0 AVR3:*
		Anode (for)	No Hazard.	AVR1:* AVR2:0 AVR3:*
		Anode (fly)	Output voltage decreased. No hazard.	AVR1:* AVR3:0 AVR2:decreased
	Short	Cathode -Anode (for)	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
		Cathode -Anode (fly)	Output voltage decreased. No hazard.	AVR1, AVR3:decreased AVR2:0
SS53	Open	Cathode	No Hazard.	AVR1:* AVR2:* AVR3:0
		Anode (for)	No Hazard.	AVR1:* AVR2:* AVR3:0
		Anode (fly)	Output voltage decreased. No hazard.	AVR1:* AVR2:* AVR3:decreased
	Short	Cathode -Anode (for)	No Hazard.	AVR1:* AVR2:* AVR3:0
		Cathode -Anode (fly)	Output voltage decreased. No hazard.	AVR1, AVR2:decreased AVR3:0
T1	Open	1	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		2	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		3	Normal operation.	
		4	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
		A	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		5	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
		6	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		7	No Hazard.	AVR1:* AVR2:* AVR3:0
		8	No Hazard.	AVR1:* AVR2:* AVR3:0
		9	No Hazard.	AVR1:* AVR2:0 AVR3:*
		10	No Hazard.	AVR1:* AVR2:0 AVR3:*
		11	Normal operation.	
		B	No Hazard.	AVR1:0 AVR2:* AVR3:*
		12	Normal operation.	

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Component	Mode		Comment	Output Voltage (V)
T1	Short	1-2	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		2-3	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		3-4	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		4-5	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
		4-A	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
		5-A	R1 opened, No hazard.	AVR1:0 AVR2:0 AVR3:0
		5-6	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		7-8	No Hazard.	AVR1:* AVR2:* AVR3:0
		8-9	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		9-10	No Hazard.	AVR1:* AVR2:0 AVR3:*
		10-11	Normal operation.	
		11-12	Normal operation.	
		11-B	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		12-B	No Hazard.	AVR1:0 AVR2:0 AVR3:0
TR1	Open	D	See 15 Page.	
		S	See 15 Page.	
		G	See 15 Page.	
	Short	D-S	See 15 Page.	
		S-G	See 15 Page.	
		G-D	See 15 Page.	
TR52	Open	C	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
		E	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
		B	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
	Short	C-E	See 15 Page.	

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Component	Mode		Comment	Output Voltage (V)
TR52	Short	E-B	See 15 Page.	
		B-C	See 15 Page.	
VR51	Open	brush	No Hazard.	AVR1:0 AVR2:0 AVR3:0
			Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
	Short	Output voltage increased. No hazard.	AVR1:increased AVR2:* AVR3:*	
ZD1	Open		Normal operation.	
	Short		No Hazard.	AVR1:0 AVR2:0 AVR3:0
ZD51	Open		Normal operation.	
	Short		No Hazard.	AVR1:0 AVR2:0 AVR3:0
R1	Open		Normal operation.	
R2	Open		Normal operation.	
R3	Open		Normal operation.	
R4	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
R5	Open		Normal operation.	
R6	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
R7	Open		Normal operation.	
R8	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
R9	Open		No Hazard.	AVR1:0 AVR2:0 AVR3:0
R10	Open		Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
R11	Open		Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
R12	Open		Normal operation.	
R13	Open		Normal operation.	
R14	Open		See 15 Page.	
R15	Open		See 15 Page.	

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Component	Mode	Comment	Output Voltage (V)
R16	Open	Normal operation.	
R17	Open	Normal operation.	
R18	Open	No Hazard.	AVR1:0 AVR2:0 AVR3:0
R19	Open	Normal operation.	
R20	Open	Normal operation.	
R21	Open	Normal operation.	
R22	Open	Normal operation.	
R23	Open	Normal operation.	
R24	Open	Normal operation.	
R25	Open	Normal operation.	
R26	Open	Normal operation.	
R29	Open	Normal operation.	
R51	Open	Normal operation.	
R52	Open	Normal operation.	
R53	Open	Normal operation.	
R54	Open	See 16 Page.	
R55	Open	Normal operation.	
R56	Open	No Hazard.	AVR1:0 AVR2:0 AVR3:0
R57	Open	Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
R58	Open	Normal operation.	
R59	Open	Normal operation.	
R60	Open	Normal operation.	
R61	Open	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
R62	Open	See 16 Page.	

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Component	Mode		Comment	Output Voltage (V)
R63	Open		See 16 Page.	
R64	Open		Normal operation.	
R65	Open		See 16 Page.	
R66	Open		See 16 Page.	
R68	Open		Normal operation.	
R69	Open		Normal operation.	
R70	Open		Normal operation.	
R71	Open	only -3	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
R72	Open		Normal operation.	
R73	Open		Normal operation.	
R74	Open		Normal operation.	
R75	Open		Normal operation.	
R76	Open		Normal operation.	
R77	Open		Normal operation.	
R78	Open		Normal operation.	
R79	Open		Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
R80	Open		Normal operation.	
R83	Open		Normal operation.	
R84	Open		Normal operation.	
R85	Open		Normal operation.	
R86	Open		Normal operation.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C6	Open		Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
C53	Short		Output voltage decreased. No hazard.	AVR1:0 AVR2, AVR3:decreased
C54	Short		Output voltage decreased. No hazard.	AVR1:0 AVR2, AVR3:decreased
C58	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased AVR2:* AVR3:*
C60	Short		Output voltage decreased. No hazard.	AVR1, AVR3:decreased AVR2:0
C62	Short		Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
C64	Short		Output voltage decreased. No hazard.	AVR1, AVR2:decreased AVR3:0
C65	Short		Output voltage decreased. No hazard.	AVR1:* AVR2:* AVR3:0
D51	Open		Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
IC51	Short	A-K	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
		K-R	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
		R-A	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
TR1	Open	D	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		S	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		G	No Hazard.	AVR1:0 AVR2:0 AVR3:0
	Short	D-S	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		S-G	No Hazard.	AVR1:0 AVR2:0 AVR3:0
		G-D	No Hazard.	AVR1:0 AVR2:0 AVR3:0
TR52	Short	C-E	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
		E-B	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
		B-C	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
R14	Open		Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased
R15	Open		Output voltage decreased. No hazard.	AVR1, AVR2, AVR3: decreased



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
R54	Open	No Hazard.	AVR1:0 AVR2:0 AVR3:0
R62	Open	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
R63	Open	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased
R65	Open	Output voltage decreased. No hazard.	AVR1:* AVR3:* AVR2:decreased
R66	Open	Output voltage increased. No hazard.	AVR1:* AVR3:* AVR2:increased