

## ABNORMAL TEST RESULT

## OF MODEL PMA60F

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 : 2/18 ~ 16/18)

( Abnormal Test Result: 17/18 ~ 18/18)

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.	
	Short	Fuse opened, No hazard.	AVR1:0
C102	Open	Normal operation.	
	Short	Fuse opened, No hazard.	AVR1:0
C103	Open	Normal operation.	
	Short	Fuse opened, No hazard.	AVR1:0
C108	Open	Normal operation.	
	Short	Normal operation.	
C109	Open	See 17 Page.	
	Short	See 17 Page.	
C110	Open	See 17 Page.	
	Short	See 17 Page.	
C111	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C112	Open	Normal operation.	
	Short	Normal operation.	
C113	Open	Normal operation.	
	Short	Normal operation.	
C115	Open	Normal operation.	
	Short	Normal operation.	
C118	Open	See 17 Page.	
	Short	Fuse opened, No hazard.	AVR1:0
C129	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C201	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C202	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C203	Open	No Hazard.	AVR1:0
	Short	Normal operation.	
C204	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C205	Open	Normal operation.	
	Short	Normal operation.	
C206	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	Normal operation.	
C207	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	Normal operation.	
C208	Open	Normal operation.	
	Short	Normal operation.	
C209	Open	Normal operation.	
	Short	Normal operation.	
C211	Open	Normal operation.	
	Short	Normal operation.	
C212	Open	Normal operation. ONLY-3R3, -5	
	Short	Output voltage decreased.No hazard. ONLY-3R3, -5	AVR1:decreased
C221	Open	Normal operation.	
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C222	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C501	Open	Normal operation.	
	Short	Normal operation.	
C502	Open	Normal operation.	
	Short	Normal operation.	
C503	Open	Normal operation.	
	Short	Normal operation.	
C504	Open	Normal operation.	
	Short	Normal operation.	
C505	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C506	Open	Normal operation. EXCEPT-24	
	Short	No Hazard. EXCEPT-24	AVR1:0
C508	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C512	Open	Normal operation. ONLY-24	
	Short	Output voltage decreased.No hazard. ONLY-24	AVR1:decreased
C513	Open	Normal operation. ONLY-3R3	
	Short	Output voltage decreased.No hazard. ONLY-3R3	AVR1:decreased
C520	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C551	Open	See 17 Page.	
	Short	Normal operation. ONLY-3R3, -5	

F M E A

Component	Mode	Comment	Output Voltage (V)
D101	Open	Normal operation.	
	Short	Normal operation.	
D102	Open	Fuse opened, No hazard.	AVR1:0
	Short	Fuse opened, No hazard.	AVR1:0
D103	Open	See 17 Page.	
	Short	See 17 Page.	
D104	Open	See 17 Page.	
	Short	See 17 Page.	
D105	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D106	Open	See 17 Page.	
	Short	See 17 Page.	
D107	Open	Normal operation.	
	Short	Normal operation.	
D108	Open	Normal operation.	
	Short	Normal operation.	
D109	Open	Normal operation.	
	Short	Normal operation.	
D110	Open	Normal operation.	
	Short	Normal operation.	
D201	Open	No Hazard.	AVR1:0
	Short	Normal operation.	
D202	Open	No Hazard.	AVR1:0
	Short	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
D203	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
D204	Open		Normal operation.	
	Short		Normal operation.	
IC101	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	
		3	Normal operation.	
		4	Normal operation.	
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	Fuse opened, No hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	Fuse opened, No hazard.	AVR1:0
IC201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Fuse opened, No hazard.	AVR1:0
		4	Normal operation.	
		5	Normal operation.	
		6	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Open	7	Normal operation.	
		8	Normal operation.	
		9	Normal operation.	
		10	No Hazard.	AVR1:0
		11	No Hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		13	Output voltage decreased.No hazard.	AVR1:decreased
		14	Normal operation.	
		15	Normal operation.	
		16	Normal operation.	
		17	No Hazard.	AVR1:0
		18	Output voltage decreased.No hazard.	AVR1:decreased
		19	Output voltage decreased.No hazard.	AVR1:decreased
		20	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	
		4-5	Normal operation.	
		5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	Normal operation.	
		8-9	Normal operation.	
		9-10	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	12-13	No Hazard.	AVR1:0
		13-14	Normal operation.	
		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
IC501	Open	K	No Hazard.	AVR1:0
		A	No Hazard.	AVR1:0
		R	No Hazard.	AVR1:0
	Short	A-K	Output voltage decreased.No hazard.	AVR1:decreased
		K-R	Output voltage decreased.No hazard.	AVR1:decreased
		R-A	No Hazard.	AVR1:0
J110	Open		Normal operation.	
J112	Open		No Hazard.	AVR1:0
J201	Open		No Hazard.	AVR1:0
J210	Open		See 17 Page.	
J211	Open		No Hazard.	AVR1:0
J212	Open		Normal operation.	
J213	Open		No Hazard.	AVR1:0
J501	Open		Normal operation. EXCEPT-15, -24	
J502	Open		No Hazard.	AVR1:0
L101	Open		No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
L101	Short		Normal operation.	
L102	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
L103	Open	1, 4	No Hazard.	AVR1:0
		7, 8	See 17 Page.	
		6, 8	No Hazard.	AVR1:0
	Short	1-4	Fuse opened, No hazard.	AVR1:0
		7-8	Fuse opened, No hazard.	AVR1:0
		6-8	Fuse opened, No hazard.	AVR1:0
L104	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
L507	Open		Fuse opened, No hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
LED501	Open		Normal operation.	
	Short		Normal operation.	
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.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	AVR1:0
SS101	Open		No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
SS101	Short		Fuse opened, No hazard.	AVR1:0
SS501	Open	Cathode	Fuse opened, No hazard. EXCEPT-3R3, -5	AVR1:0
		Alternative	See 17 Page.	
	Short		No Hazard. EXCEPT-3R3, -5	AVR1:0
SS502	Open	Cathode	Fuse opened, No hazard. EXCEPT-3R3, -5	AVR1:0
		Alternative	See 17 Page.	
	Short		No Hazard. EXCEPT-3R3, -5	AVR1:0
T201	Open	10, 12	No Hazard.	AVR1:0
		7, 9	No Hazard.	AVR1:0
		2, 3, 4, 5	Fuse opened, No hazard.	AVR1:0
		1, 6	See 17 Page.	
	Short	10-12	Fuse opened, No hazard.	AVR1:0
		7-9	Fuse opened, No hazard.	AVR1:0
		2, 3-4, 5	Fuse opened, No hazard.	AVR1:0
		1-6	Fuse opened, No hazard.	AVR1:0
TH101	Open		No Hazard.	AVR1:0
TR101	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	
		G-D	No Hazard.	AVR1:0
TR102	Open	D	See 17 Page.	
		S	See 17 Page.	

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Component	Mode		Comment	Output Voltage (V)
TR102	Open	G	See 17 Page.	
	Short	D-S	See 17 Page.	
		S-G	See 17 Page.	
		G-D	See 17 Page.	
TR103	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR105	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR201	Open	D	See 17 Page.	
		S	See 18 Page.	
		G	See 18 Page.	
	Short	D-S	See 18 Page.	
		S-G	See 18 Page.	
		G-D	See 18 Page.	
TR501	Open	D	No Hazard. ONLY-3R3, -5	AVR1:0
		S	No Hazard. ONLY-3R3, -5	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
TR501	Open	G	See 18 Page.	
	Short	D-S	No Hazard. ONLY-3R3, -5	AVR1:0
		S-G	See 18 Page.	
		G-D	See 18 Page.	
TR502	Open	D	No Hazard. ONLY-3R3, -5	AVR1:0
		S	No Hazard. ONLY-3R3, -5	AVR1:0
		G	See 18 Page.	
	Short	D-S	No Hazard. ONLY-3R3, -5	AVR1:0
		S-G	See 18 Page.	
		G-D	See 18 Page.	
VR501	Open	brush	Output voltage decreased.No hazard.	AVR1:decreased
			Output voltage decreased.No hazard.	AVR1:decreased
	Short		No Hazard.	AVR1:0
ZD121	Open		Normal operation.	
	Short		Normal operation.	
ZD123	Open		Normal operation.	
	Short		Normal operation.	
ZD501	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
ZD502	Open		Normal operation. ONLY-15, -24	
	Short		No Hazard. ONLY-15, -24	AVR1:0
ZD551	Open		See 18 Page.	
	Short		See 18 Page.	
R101	Open		Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R102	Open	Normal operation.	
R103	Open	Normal operation.	
R104	Open	Normal operation.	
R105	Open	Normal operation.	
R106	Open	Normal operation.	
R107	Open	Normal operation.	
R108	Open	Normal operation.	
R109	Open	Normal operation.	
R110	Open	Normal operation.	
R111	Open	Normal operation.	
R112	Open	Normal operation.	
R113	Open	Normal operation.	
R114	Open	Normal operation.	
R115	Open	Normal operation.	
R116	Open	Normal operation.	
R117	Open	See 18 Page.	
R118	Open	Normal operation.	
R119	Open	Fuse opened, No hazard.	AVR1:0
R120	Open	No Hazard.	AVR1:0
R121	Open	Normal operation.	
R123	Open	Normal operation.	
R124	Open	No Hazard.	AVR1:0
R125	Open	No Hazard.	AVR1:0
R126	Open	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R127	Open	No Hazard.	AVR1:0
R128	Open	No Hazard.	AVR1:0
R129	Open	No Hazard.	AVR1:0
R130	Open	No Hazard.	AVR1:0
R131	Open	Normal operation.	
R132	Open	Normal operation.	
R133	Open	Normal operation.	
R136	Open	Normal operation.	
R137	Open	Normal operation.	
R139	Open	Normal operation.	
R151	Open	Normal operation.	
R152	Open	No Hazard.	AVR1:0
R153	Open	Normal operation.	
R201	Open	Normal operation.	
R202	Open	Normal operation.	
R203	Open	Normal operation.	
R204	Open	Normal operation.	
R205	Open	No Hazard.	AVR1:0
R206	Open	Normal operation.	
R207	Open	No Hazard.	AVR1:0
R208	Open	Output voltage decreased.No hazard.	AVR1:decreased
R209	Open	No Hazard.	AVR1:0
R210	Open	Fuse opened, No hazard.	AVR1:0
R211	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R212	Open	Normal operation.	
R213	Open	Output voltage decreased.No hazard.	AVR1:decreased
R214	Open	Normal operation.	
R216	Open	Output voltage decreased.No hazard.	AVR1:decreased
R218	Open	Normal operation.	
R220	Open	No Hazard.	AVR1:0
R221	Open	Normal operation. ONLY-3R3, -5	
R501	Open	Normal operation.	
R502	Open	Normal operation.	
R503	Open	No Hazard.	AVR1:0
R504	Open	Normal operation.	
R505	Open	Output voltage decreased.No hazard.	AVR1:decreased
R506	Open	No Hazard.	AVR1:0
R507	Open	Output voltage decreased.No hazard.	AVR1:decreased
R508	Open	No Hazard. ONLY-3R3	AVR1:0
R509	Open	No Hazard.	AVR1:0
R510	Open	Normal operation.	
R511	Open	Normal operation.	
R512	Open	Normal operation.	
R513	Open	Normal operation.	
R514	Open	Normal operation. EXCEPT-3R3, -5	
R515	Open	Normal operation. EXCEPT-3R3, -5	
R517	Open	Normal operation.	
R521	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R522	Open	Normal operation.	
R523	Open	Normal operation.	
R524	Open	Normal operation.	
R525	Open	Normal operation.	
R526	Open	Normal operation. EXCEPT-5	
R527	Open	Normal operation. EXCEPT-3R3, -5	
R528	Open	Normal operation. EXCEPT-3R3, -5	
R529	Open	Normal operation. ONLY-12	
R530	Open	Normal operation. ONLY-12	
R531	Open	Normal operation. ONLY-12	
R532	Open	Normal operation. ONLY-12	
R551	Open	See 18 Page.	
R552	Open	Normal operation. ONLY-3R3, -5	
R554	Open	Normal operation. ONLY-3R3, -5	
R555	Open	Normal operation. ONLY-3R3, -5	
¥102	Open	No Hazard.	AVR1:0
¥103	Open	No Hazard.	AVR1:0
¥107 (AF)	Open	No Hazard.	AVR1:0
¥107 (DD)	Open	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C109	Open		Normal operation.	
	Short		Normal operation.	
C110	Open		Normal operation.	
	Short		Normal operation.	
C118	Open		Fuse opened, No hazard.	AVR1:0
C551	Open		Normal operation. ONLY-3R3, -5	
D103	Open		Normal operation.	
	Short		Normal operation.	
D104	Open		Normal operation.	
	Short		Normal operation.	
D106	Open		Normal operation.	
	Short		Normal operation.	
J210	Open		Normal operation.	
L103	Open	7, 8	Fuse opened, No hazard.	AVR1:0
SS501	Open	Alternative	Normal operation. EXCEPT-3R3, -5	
SS502	Open	Alternative	Normal operation. EXCEPT-3R3, -5	
T201	Open	1, 6	Normal operation. ONLY-3R3, -5	
TR102	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	Fuse opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	Fuse opened, No hazard.	AVR1:0
TR201	Open	D	No Hazard.	AVR1:0

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR201	Open	S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	Fuse opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	Fuse opened, No hazard.	AVR1:0
TR501	Open	G	Normal operation. ONLY-3R3, -5	
	Short	S-G	Normal operation. ONLY-3R3, -5	
		G-D	No Hazard. ONLY-3R3, -5	AVR1:0
TR502	Open	G	Normal operation. ONLY-3R3, -5	
	Short	S-G	Normal operation. ONLY-3R3, -5	
		G-D	No Hazard. ONLY-3R3, -5	AVR1:0
ZD551	Open		Normal operation. ONLY-3R3, -5	
	Short		Normal operation. ONLY-3R3, -5	
R117	Open		Normal operation.	
R551	Open		Normal operation. ONLY-3R3, -5	