

## ABNORMAL TEST RESULT

OF MODEL SFS2048

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 : 2/25 ~ 22/25)

( Abnormal Test Result: 23/25 ~ 25/25)

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	External fuse opened, No hazard.	0[V]
C102	Open	Normal operation.	
	Short	See 23 Page.	
C103	Open	Normal operation.	
	Short	See 23 Page.	
C105	Open	Normal operation.	
	Short	Normal operation.	
C106	Open	Normal operation.	
	Short	Normal operation.	
C131	Open	Normal operation.	
	Short	No Hazard.	0[V]
C141	Open	See 23 Page.	
	Short	No Hazard.	0[V]
C142	Open	Normal operation.	
	Short	No Hazard.	0[V]
C161	Open	Normal operation.	
	Short	No Hazard.	0[V]
C201	Open	Normal operation.	
	Short	Normal operation.	
C202	Open	Normal operation.	
	Short	No Hazard.	0[V]
C203	Open	Normal operation.	
	Short	No Hazard.	0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
C205	Open	Normal operation.	
	Short	Normal operation.	
C206	Open	Normal operation.	
	Short	Normal operation.	
C251	Open	Normal operation.	
	Short	Normal operation.	
C252	Open	Normal operation.	
	Short	Normal operation.	
C253	Open	Normal operation.	
	Short	Normal operation.	
C255	Open	Normal operation.	
	Short	Normal operation.	
C301	Open	Normal operation.	
	Short	No Hazard.	0[V]
C302	Open	See 23 Page.	
	Short	No Hazard.	0[V]
C303	Open	See 23 Page.	
	Short	No Hazard.	Decreased
C304	Open	See 23 Page.	
	Short	No Hazard.	0[V]
C305	Open	See 23 Page.	
	Short	No Hazard.	0[V]
C306	Open	Normal operation.	
	Short	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
C308	Open		Normal operation.	
	Short		Normal operation.	
C342	Open		No Hazard.	0[V]
	Short		See 23 Page.	
C353	Open		Normal operation.	
	Short		No Hazard.	0[V]
C354	Open	Only 1R5, 1R8	Normal operation.	
	Short	Only 1R5, 1R8	No Hazard.	0[V]
C401	Open		Normal operation.	
	Short		No Hazard.	Increased
C501	Open		Normal operation.	
	Short		No Hazard.	0[V]
C502	Open		Normal operation.	
	Short		No Hazard.	0[V]
C503	Open		Normal operation.	
	Short		No Hazard.	0[V]
C504	Open		Normal operation.	
	Short		No Hazard.	0[V]
C505	Open		Normal operation.	
	Short		No Hazard.	0[V]
C507	Open	Except 1R8, 2R5	Normal operation.	
	Short	Except 1R8, 2R5	No Hazard.	0[V]
C601	Open		See 23 Page.	
	Short		Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
D141	Open		No Hazard.	0[V]
	Short		See 23 Page.	
D142	Open		No Hazard.	0[V]
	Short		No Hazard.	0[V]
D143	Open		No Hazard.	0[V]
	Short		No Hazard.	0[V]
D161	Open		Normal operation.	
	Short		Normal operation.	
D251	Open		Normal operation.	
	Short		See 23 Page.	
D601	Open		See 23 Page.	
	Short		No Hazard.	0[V]
D602	Open		See 23 Page.	
	Short		See 23 Page.	
IC101	Open	1	No Hazard.	0[V]
		2	No Hazard.	0[V]
		3	No Hazard.	0[V]
		4	See 23 Page.	
		5	No Hazard.	0[V]
		6	No Hazard.	0[V]
		7	No Hazard.	0[V]
		8	Normal operation.	
	Short	1-2	No Hazard.	0[V]
		2-3	No Hazard.	0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC101	Short	3-4	No Hazard.	
		5-6	No Hazard.	0[V]
		6-7	No Hazard.	0[V]
		7-8	See 23 Page.	
L101	Open		No Hazard.	0[V]
	Short		Normal operation.	
L102	Open		No Hazard.	0[V]
	Short		Normal operation.	
L141	Open		No Hazard.	0[V]
	Short		See 23 Page.	
L501	Open		No Hazard.	0[V]
	Short		No Hazard.	0[V]
SS651	Open	K	No Hazard.	0[V]
		A1	No Hazard.	0[V]
		A2	No Hazard.	0[V]
	Short	A1- A2	No Hazard.	0[V]
		K - A1	No Hazard.	0[V]
		K - A2	No Hazard.	0[V]
T101	Open	1 or 2	No Hazard.	0[V]
		3 or 4	No Hazard.	0[V]
		5 or 6 Only 3R3, 05	No Hazard.	0[V]
		5 or 7 Only 1R8, 2R5	No Hazard.	0[V]
		6 or 7 Only 1R5	No Hazard.	0[V]
		7 or 8 Only 3R3, 05	See 23 Page.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
T101	Open	8 or 9 Except 3R3, 05	See 23 Page.	
		9 or 10 Only 3R3, 05	No Hazard.	0[V]
		10 or 11 Except 3R3, 05	No Hazard.	0[V]
		11 or 12 Only 3R3, 05	No Hazard.	0[V]
		12 or 13 Except 3R3, 05	No Hazard.	0[V]
	Short	1 - 2	No Hazard.	0[V]
		3 - 4	No Hazard.	0[V]
		5 - 6 Only 3R3, 05	No Hazard.	0[V]
		5 - 7 Only 1R8, 2R5	No Hazard.	0[V]
		6 - 7 Only 1R5	No Hazard.	0[V]
		7 - 8 Only 3R3, 05	No Hazard.	0[V]
		8 - 9 Except 3R3, 05	No Hazard.	0[V]
		9 - 10 Only 3R3, 05	No Hazard.	0[V]
		10 - 11 Except 3R3, 05	No Hazard.	0[V]
		11 - 12 Only 3R3, 05	No Hazard.	0[V]
		12 - 13 Except 3R3, 05	No Hazard.	0[V]
TR101	Open	D	See 23 Page.	
		S	See 23 Page.	
		G	See 23 Page.	
	Short	D-S	See 23 Page.	
		S-G	See 23 Page.	
		G-D	See 24 Page.	
TR131	Open	C	Normal operation.	
		E	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR131	Open	B	Normal operation.	
	Short	C-E	See 24 Page.	
		E-B	Normal operation.	
		B-C	See 24 Page.	
TR132	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	See 24 Page.	
		E-B	Normal operation.	
		B-C	See 24 Page.	
TR141	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	No Hazard.	0[V]
	Short	D-S	Normal operation.	
		S-G	No Hazard.	0[V]
		G-D	Normal operation.	
TR142	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	C-E	Normal operation.	
		E-B	No Hazard.	0[V]
		B-C	See 24 Page.	
TR161	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]



F M E A

Component	Mode		Comment	Output Voltage (V)
TR161	Open	B	No Hazard.	0[V]
	Short	C-E	See 24 Page.	
		E-B	See 24 Page.	
		B-C	See 24 Page.	
TR162	Open	C	See 24 Page.	
		E	See 24 Page.	
		B	See 24 Page.	
	Short	C-E	No Hazard.	0[V]
		E-B	See 24 Page.	
		B-C	No Hazard.	0[V]
TR201	Open	C6	Normal operation.	
		E1	No Hazard.	0[V]
		B2	No Hazard.	0[V]
	Short	C6-E1	Normal operation.	
		E1-B2	Normal operation.	
		B2-C6	Normal operation.	
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
TR202	Open	D6	Normal operation.	
		S1	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR202	Open	G2	Normal operation.	
	Short	D6-S1	Normal operation.	
		S1-G2	Normal operation.	
		G2-D6	Normal operation.	
	Open	D3	Normal operation.	
		S4	Normal operation.	
		G5	Normal operation.	
	Short	D3-S4	No Hazard.	0[V]
		S4-G5	Normal operation.	
		G5-D3	No Hazard.	0[V]
TR205	Open	C6	No Hazard.	0[V]
		E1	No Hazard.	0[V]
		B2	No Hazard.	0[V]
	Short	C6-E1	Normal operation.	
		E1-B2	No Hazard.	0[V]
		B2-C6	Normal operation.	
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	Normal operation.	
		B5-C3	No Hazard.	0[V]
TR206	Open	C	Normal operation.	
		E	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR206	Open	B	Normal operation.	
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]
TR251	Open	C6	No Hazard.	0[V]
		E1	No Hazard.	0[V]
		B2	No Hazard.	0[V]
	Short	C6-E1	Normal operation.	
		E1-B2	No Hazard.	0[V]
		B2-C6	No Hazard.	0[V]
	Open	C3	No Hazard.	0[V]
		E4	No Hazard.	0[V]
		B5	No Hazard.	0[V]
	Short	C3-E4	Normal operation.	
		E4-B5	No Hazard.	0[V]
		B5-C3	Normal operation.	
TR252	Open	C6	Normal operation.	
		E1	Normal operation.	
		B2	Normal operation.	
	Short	C6-E1	No Hazard.	0[V]
		E1-B2	Normal operation.	
		B2-C6	No Hazard.	0[V]
	Open	C3	Normal operation.	
		E4	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR252	Open	B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	Normal operation.	
		B5-C3	No Hazard.	0[V]
TR253	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]
TR254	Open	C6	Normal operation.	
		E1	Normal operation.	
		B2	Normal operation.	
	Short	C6-E1	Normal operation.	
		E1-B2	Normal operation.	
		B2-C6	Normal operation.	
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
TR301	Open	C6	Normal operation.	
		E1	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR301	Open	B2	Normal operation.	
	Short	C6-E1	No Hazard.	0[V]
		E1-B2	Normal operation.	
		B2-C6	No Hazard.	0[V]
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	Normal operation.	
		E4-B5	Normal operation.	
		B5-C3	Normal operation.	
TR302	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	0[V]
		S-G	Normal operation.	
		G-D	No Hazard.	0[V]
TR331	Open	C6	Normal operation.	
		E1	No Hazard.	0[V]
		B2	No Hazard.	0[V]
	Short	C6-E1	Normal operation.	
		E1-B2	Normal operation.	
		B2-C6	Normal operation.	
	Open	C3	Normal operation.	
		E4	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR331	Open	B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	Normal operation.	
		B5-C3	No Hazard.	0[V]
TR341	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	C-E	No Hazard.	0[V]
		E-B	No Hazard.	0[V]
		B-C	No Hazard.	0[V]
TR351	Open	C6	No Hazard.	0[V]
		E1	No Hazard.	0[V]
		B2	No Hazard.	0[V]
	Short	C6-E1	Normal operation.	
		E1-B2	No Hazard.	0[V]
		B2-C6	See 24 Page.	
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	No Hazard.	0[V]
		B5-C3	Normal operation.	
TR352	Open	C6	Normal operation.	
		E1	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR352	Open	B2	Normal operation.	
	Short	C6-E1	No Hazard.	0[V]
		E1-B2	Normal operation.	
		B2-C6	No Hazard.	0[V]
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	No Hazard.	0[V]
		B5-C3	Normal operation.	
TR353	Open	C6	No Hazard.	0[V]
		E1	Normal operation.	
		B2	Normal operation.	
	Short	C6-E1	Normal operation.	
		E1-B2	Normal operation.	
		B2-C6	Normal operation.	
	Open	C3	Normal operation.	
		E4	Normal operation.	
		B5	Normal operation.	
	Short	C3-E4	No Hazard.	0[V]
		E4-B5	Normal operation.	
		B5-C3	No Hazard.	0[V]
TR354	Open	C6	No Hazard.	0[V]
		E1	No Hazard.	0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR354	Open	B2	No Hazard.	0[V]
	Short	C6-E1	See 24 Page.	
		E1-B2	No Hazard.	0[V]
		B2-C6	See 24 Page.	
	Open	C3	No Hazard.	0[V]
		E4	No Hazard.	0[V]
		B5	No Hazard.	0[V]
	Short	C3-E4	Normal operation.	
		E4-B5	No Hazard.	0[V]
		B5-C3	Normal operation.	
TR401	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	No Hazard.	0[V]
		G-D	Normal operation.	
TR501	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	See 24 Page.	
	Short	D-S	No Hazard.	0[V]
		S-G	See 24 Page.	
		G-D	No Hazard.	0[V]
TR502	Open	D	See 24 Page.	
		S	See 24 Page.	



## F M E A

Component	Mode		Comment	Output Voltage (V)
TR502	Open	G	See 24 Page.	
	Short	D-S	No Hazard.	0[V]
		S-G	See 24 Page.	
		G-D	No Hazard.	0[V]
TR601	Open	D6	See 24 Page.	
		S1	See 24 Page.	
		G2	See 25 Page.	
	Short	D6-S1	No Hazard.	0[V]
		S1-G2	See 25 Page.	
		G2-D6	See 25 Page.	
	Open	D3	No Hazard.	0[V]
		S4	No Hazard.	0[V]
		G5	No Hazard.	0[V]
	Short	D3-S4	See 25 Page.	
		S4-G5	No Hazard.	0[V]
		G5-D3	No Hazard.	0[V]
ZD131	Open		See 25 Page.	
	Short		Normal operation.	
ZD132	Open		See 25 Page.	
	Short		Normal operation.	
ZD201	Open		No Hazard.	0[V]
	Short		Normal operation.	
ZD301	Open		Normal operation.	
	Short		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
ZD351	Open		Normal operation.	
	Short		No Hazard.	0[V]
ZD601	Open		See 25 Page.	
	Short		See 25 Page.	
ZD602	Open		Normal operation.	
	Short		No Hazard.	0[V]
ZD603	Open		See 25 Page.	
	Short		See 25 Page.	
R101	Open		No hazard.	0[V]
R131	Open		No Hazard.	0[V]
R132	Open		No Hazard.	0[V]
R133	Open		No Hazard.	0[V]
R134	Open		Normal operation.	
R135	Open		Normal operation.	
R136	Open		Normal operation.	
R137	Open		Normal operation.	
R141	Open		Normal operation.	
R142	Open		Normal operation.	
R143	Open		See 25 Page.	
R144	Open		No Hazard.	0[V]
R145	Open		No Hazard.	0[V]
R148	Open		No Hazard.	0[V]
R151	Open	Only 1R8, 2R5	No Hazard.	0[V]
R152	Open	Only 1R5	No Hazard.	0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
R161	Open	No Hazard.	0[V]
R162	Open	No Hazard.	0[V]
R163	Open	No Hazard.	0[V]
R164	Open	Normal operation.	
R165	Open	See 25 Page.	
R166	Open	No Hazard.	0[V]
R201	Open	No Hazard.	0[V]
R202	Open	No Hazard.	0[V]
R203	Open	Normal operation.	
R204	Open	Normal operation.	
R205	Open	Normal operation.	
R206	Open	Normal operation.	
R210	Open	Normal operation.	
R211	Open	No Hazard.	0[V]
R212	Open	Normal operation.	
R213	Open	Normal operation.	
R214	Open	Normal operation.	
R215	Open	Normal operation.	
R216	Open	Normal operation.	
R220	Open	Normal operation.	
R221	Open	Normal operation.	
R223	Open	Normal operation.	
R224	Open	Normal operation.	
R251	Open	No Hazard.	0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
R252	Open	Normal operation.	
R253	Open	No Hazard.	0[V]
R254	Open	Normal operation.	
R255	Open	Normal operation.	
R256	Open	Normal operation.	
R257	Open	Normal operation.	
R258	Open	Normal operation.	
R259	Open	Normal operation.	
R260	Open	Normal operation.	
R261	Open	No Hazard.	0[V]
R262	Open	Normal operation.	
R263	Open	Normal operation.	
R264	Open	Normal operation.	
R265	Open	Normal operation.	
R301	Open	No Hazard.	0[V]
R302	Open	Normal operation.	
R303	Open	Normal operation.	
R304	Open	See 25 Page.	
R305	Open	Normal operation.	
R306	Open	See 25 Page.	
R307	Open	No Hazard.	0[V]
R308	Open	See 25 Page.	
R311	Open	No Hazard.	0[V]
R313	Open	See 25 Page.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R314	Open	Normal operation.	
R315	Open	Normal operation.	
R316	Open	Normal operation.	
R317	Open	Normal operation.	
R321	Open	No Hazard.	0[V]
R331	Open	No Hazard.	0[V]
R332	Open	Normal operation.	
R333	Open	Normal operation.	
R342	Open	Normal operation.	
R354	Open	Normal operation.	
R355	Open	No Hazard.	0[V]
R356	Open	Normal operation.	
R358	Open	No Hazard.	0[V]
R359	Open	Normal operation.	
R360	Open	No Hazard.	0[V]
R361	Open	Normal operation.	
R362	Open	Normal operation.	
R363	Open	No Hazard.	0[V]
R364	Open	No Hazard.	0[V]
R401	Open	Normal operation.	
R402	Open	Normal operation.	
R403	Open	Normal operation.	
R407	Open	Normal operation.	
R501	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R601	Open	See 25 Page.	
R602	Open	See 25 Page.	
R603	Open	Normal operation.	
R604	Open	See 25 Page.	
R606	Open	Normal operation.	
R607	Open	No Hazard.	0[V]
R611	Open	Normal operation.	
R650	Open	Normal operation.	
R651	Open	No Hazard.	0[V]

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C102	Short		External fuse opened, No hazard.	0[V]
C103	Short		External fuse opened, No hazard.	0[V]
C141	Open		No Hazard.	0[V]
C302	Open		No Hazard.	0[V]
C303	Open		No Hazard.	Decreased
C304	Open		No Hazard.	Decreased
C305	Open		No Hazard.	Decreased
C342	Short		No Hazard.	0[V]
C601	Open		No Hazard.	Decreased
D141	Short		Normal operation.	
D251	Short		No Hazard.	0[V]
D601	Open		No Hazard.	Decreased
D602	Open		Normal operation.	
	Short		No Hazard.	Decreased
IC101	Open	4	No Hazard.	Decreased
	Short	7-8	R134 opened, No Hazard.	0[V]
L141	Short		No Hazard.	Decreased
T101	Open	7 or 8 Only 3R3, 05	No Hazard.	Decreased
		8 or 9 Except 3R3, 05	No Hazard.	Decreased
TR101	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	No Hazard.	0[V]
	Short	D-S	External fuse opened, No hazard.	0[V]
		S-G	No Hazard.	0[V]

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR101	Short	G-D	External fuse opened, No hazard.	0[V]
TR131	Short	C-E	R134 opened, No Hazard.	0[V]
		B-C	R134 opened, No Hazard.	0[V]
TR132	Short	C-E	R134 opened, No Hazard.	0[V]
		B-C	R134 opened, No Hazard.	0[V]
TR142	Short	B-C	Normal operation.	
TR161	Short	C-E	External fuse opened, No hazard.	0[V]
		E-B	External fuse opened, No hazard.	0[V]
		B-C	External fuse opened, No hazard.	0[V]
TR162	Open	C	External fuse opened, No hazard.	0[V]
		E	External fuse opened, No hazard.	0[V]
		B	External fuse opened, No hazard.	0[V]
	Short	E-B	External fuse opened, No hazard.	0[V]
TR351	Short	B2-C6	R134 opened, No Hazard.	0[V]
TR354	Short	C6-E1	R134 opened, No Hazard.	0[V]
		B2-C6	R134 opened, No Hazard.	0[V]
TR501	Open	G	No Hazard.	Decreased
	Short	S-G	No Hazard.	Decreased
TR502	Open	D	No Hazard.	Decreased
		S	No Hazard.	Decreased
		G	No Hazard.	Decreased
	Short	S-G	No Hazard.	0[V]
TR601	Open	D6	No Hazard.	0[V]
		S1	No Hazard.	0[V]



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR601	Open	G2	No Hazard.	Decreased
	Short	S1-G2	No Hazard.	Decreased
		G2-D6	No Hazard.	0[V]
		D3-S4	No Hazard.	0[V]
ZD131	Open		R134 opened, No Hazard.	0[V]
ZD132	Open		R134 opened, No Hazard.	0[V]
ZD601	Open		Normal operation.	
	Short		Normal operation.	
ZD603	Open		Normal operation.	
	Short		Normal operation.	
R143	Open		Normal operation.	
R165	Open		External fuse opened, R101 opened, No hazard.	0[V]
R304	Open		No Hazard.	Decreased
R306	Open		No Hazard.	Decreased
R308	Open		No Hazard.	Decreased
R313	Open		No Hazard.	Decreased
R601	Open		Normal operation.	
R602	Open		Normal operation.	
R604	Open		No Hazard.	Decreased