

ABNORMAL TEST RESULT

OF MODEL SFS3048/SFCS3048

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.	
C104	Open	Only 10 12 15	Normal operation	
	Short	Only 10 12 15	Normal operation	
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]



F M E A

Component	Mode	Comment	Output Voltage (V)
C203	Open	Normal operation	
	Short	No Hazard	0[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]



F M E A

Component	Mode		Comment	Output Voltage (V)
C306	Open		Normal operation	
	Short		No Hazard	0[V]
C308	Open		No Hazard	0[V]
	Short		Normal operation	
C342	Open		No Hazard	0[V]
	Short		See 23 Page.	
C353	Open		Normal operation	
	Short		No Hazard	0[V]
C401	Open		Normal operation	
	Short		Normal operation	
C501	Open		Normal operation	
	Short		No Hazard	0[V]
C502	Open		Normal operation	
	Short		No Hazard	0[V]
C511	Open	Only 05	Normal operation	
	Short	Only 05	Normal operation	
C512	Open	Only 05	Normal operation	
	Short	Only 05	Normal operation	
C601	Open		See 23 Page.	
	Short		Normal operation	
D141	Open		No Hazard	0[V]
	Short		See 23 Page.	
D161	Open		Normal operation	
	Short		Normal operation	

F M E A

Component	Mode		Comment	Output Voltage (V)
D251	Open		Normal operation	
	Short		See 23 Page.	
D601	Open		See 23 Page.	
	Short		No Hazard	0[V]
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]
		3-4	Normal operation	
		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.	



F M E A

Component	Mode		Comment	Output Voltage (V)
L501	Open		No Hazard	0[V]
	Short		No Hazard	0[V]
SS141	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]
SS651	Open	K	No Hazard	0[V]
		A1	No Hazard	0[V]
		A2	Normal operation	
	Short	A1-A2	No Hazard	0[V]
		K-A1	Normal operation	
		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 or 7	No Hazard	0[V]
		8 or 9	See 23 Page.	
		10 or 11	No Hazard	0[V]
		12 or 13	No Hazard	0[V]
	Short	1-2	No Hazard	0[V]
		3-4	No Hazard	0[V]
		5-6 5-7 6-7	No Hazard	0[V]
		8-9	No Hazard	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
T101	Short	10-11	No Hazard	0[V]
		12-13	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 23 Page.	
TR131	Open	C	Normal operation	
		E	Normal operation	
		B	Normal operation	
	Short	C-E	See 23 Page.	
		E-B	Normal operation	
		B-C	See 23 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	



F M E A

Component	Mode		Comment	Output Voltage (V)
TR141	Short	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]
		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	



F M E A

Component	Mode		Comment	Output Voltage (V)
TR201	Short	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]
	TR202	Open	D6	Normal operation
S1			Normal operation	
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	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR205	Short	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	
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		

F M E A

Component	Mode		Comment	Output Voltage(V)	
TR251	Short	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		
		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		



F M E A

Component	Mode		Comment	Output Voltage (V)	
TR254	Short	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]	
	TR301	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		
		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]	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR302	Short	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	
		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	



F M E A

Component	Mode		Comment	Output Voltage (V)	
TR351	Short	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		
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		



F M E A

Component	Mode		Comment	Output Voltage (V)
TR353	Short	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
E1			No Hazard	0[V]
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	See 24 Page.	
		E4-B5	No Hazard	0[V]
		B5-C3	See 24 Page.	
TR401	Open	D	Normal operation	
		S	Normal operation	
		G	Normal operation	
	Short	D-S	Normal operation	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR401	Short	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.	
		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 24 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.		

F M E A

Component	Mode		Comment	Output Voltage (V)
TR601	Short	S4-G5	No Hazard	0[V]
		G5-D3	No Hazard	0[V]
TR602	Open	D	See 25 Page.	
		S	See 25 Page.	
		G	Normal operation	
	Short	D-S	See 25 Page.	
		S-G	See 25 Page.	
		G-D	See 25 Page.	
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	
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.	



F M E A

Component	Mode		Comment	Output Voltage (V)
R101	Open	Except 10 12 15	See 26 Page.	
R102	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.	
R145	Open		No Hazard	0[V]
R148	Open		No Hazard	0[V]
R151	Open	Except 1R5 02 12	No Hazard	0[V]
R152	Open	Only 1R5 02 12	No Hazard	0[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]

F M E A

Component	Mode	Comment	Output Voltage (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]
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	

F M E A

Component	Mode		Comment	Output Voltage (V)
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]
R312	Open	Only 1R5 2R5	No Hazard	0[V]
R313	Open		See 25 Page.	
R314	Open		Normal operation	
R315	Open		Normal operation	
R316	Open		Normal operation	
R317	Open		Normal operation	
R319	Open		Normal operation	
R321	Open		No Hazard	0[V]
R331	Open		No Hazard	0[V]

F M E A

Component	Mode		Comment	Output Voltage (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	
R501	Open		Normal operation	
R502	Open		Normal operation	
R511	Open	Only 05	Normal operation	
R512	Open	Only 05	Normal operation	
R513	Open	Only 05	Normal operation	
R514	Open	Only 05	Normal operation	
R601	Open		See 25 Page.	
R602	Open		See 25 Page.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R603	Open	Normal operation	
R604	Open	See 25 Page.	
R605	Open	Normal operation	
R606	Open	Normal operation	
R607	Open	Normal operation	
R608	Open	Normal operation	
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
IC101	Open	4	No Hazard.	Decreased
	Short	7-8	R134 opened, No Hazard.	0[V]
L141	Short		No Hazard.	Decreased
T101	Open	8 or 9	No Hazard.	Decreased
TR101	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	No Hazard.	0[V]
	Short	D-S	No Hazard.	0[V]
		S-G	No Hazard.	0[V]
		G-D	No Hazard.	0[V]
TR131	Short	C-E	R134 opened, No Hazard.	0[V]
		B-C	R134 opened, No Hazard.	0[V]

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (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	No Hazard.	0[V]
		E-B	No Hazard.	0[V]
		B-C	No Hazard.	0[V]
TR162	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	E-B	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]
		C3-E4	R134 opened, No Hazard.	0[V]
		B5-C3	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.	Decreased
		S1	No Hazard.	Decreased
		G2	No Hazard.	Decreased



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR601	Short	S1-G2	No Hazard.	Decreased
		G2-D6	No Hazard.	0[V]
		D3-S4	No Hazard.	0[V]
TR602	Open	D	Normal operation.	
		S	Normal operation.	
	Short	D-S	No Hazard.	Decreased
		S-G	No Hazard.	Decreased
		G-D	No Hazard.	Decreased
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.	
R101	Short	Only 10 12 15	No Hazard.	0[V]
R143	Open		Normal operation.	
R165	Open		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