FAST RECOVERY 1 PHASE FULL WAVE BRIDGE RECTIFIERS

SCAJ05F SCAJ1F SCAJ2F SCAJ4F SCAJ6F

January 16, 1998

FAST RECOVERY, LOW CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- Fast reverse recovery time

QUICK REFERENCE DATA

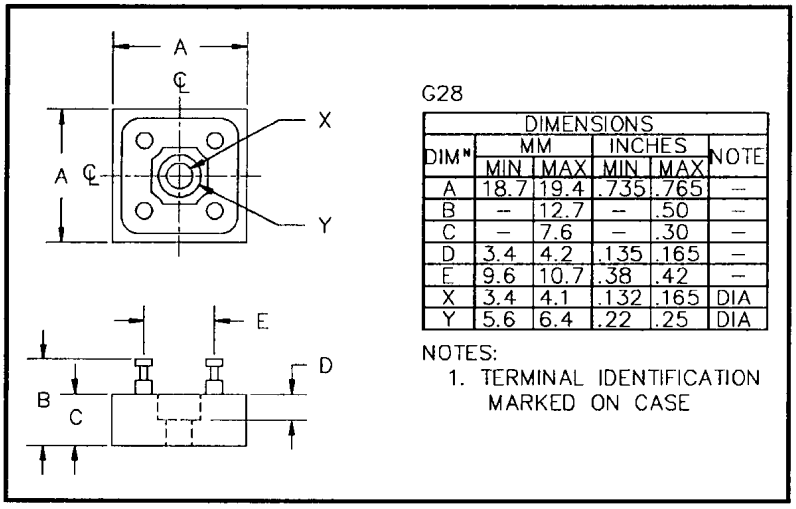
- V_R = 50V - 600V
- I_F = 4.5A
- I_R = 2.0µA
- t_{rr} = 150 - 250nS

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$ (@ case temperature) @ 55°C	@ 100°C	@ 125°C	(@ ambient temperature) @ 25°C	@ 55°C	@ 100°C	1 Cycle Surge Current I_{FSM} t_p = 8.3mS @ 25°C	@ 100°C
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCAJ05F SCAJ1F SCAJ2F SCAJ4F SCAJ6F	50 100 200 400 600	4.5	3.0	2.0	1.5	1.0	0.7	25	15

$R_{\theta JC}$ = 5°C/W

MECHANICAL



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DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	18.7	19.4	.735	.765	–
B	–	12.7	–	.50	–
C	–	7.6	–	.30	–
D	3.4	4.2	.135	.165	–
E	9.6	10.7	.38	.42	–
X	3.4	4.1	.132	.165	DIA
Y	5.6	6.4	.22	.25	DIA

NOTES:
1. TERMINAL IDENTIFICATION MARKED ON CASE

SCAJ4F is available in Europe to DEF STAN 59-61/90/207 release to F and FX levels.

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ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 25°C	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 100°C	Maximum Forward Voltage V_F @ 1A/leg	Reverse Recovery Time [1] t_{rr} @ 25°C	Maximum operating & storage temp. range. T_{OP} T_{STG}
	µA	µA	Volts	nS	°C
SCAJ05F	2.0	50	1.2	150	-55 to +150
SCAJ1F				150	
SCAJ2F				150	
SCAJ4F				150	
SCAJ6F				250	

[1] Measured on discrete devices prior to assembly

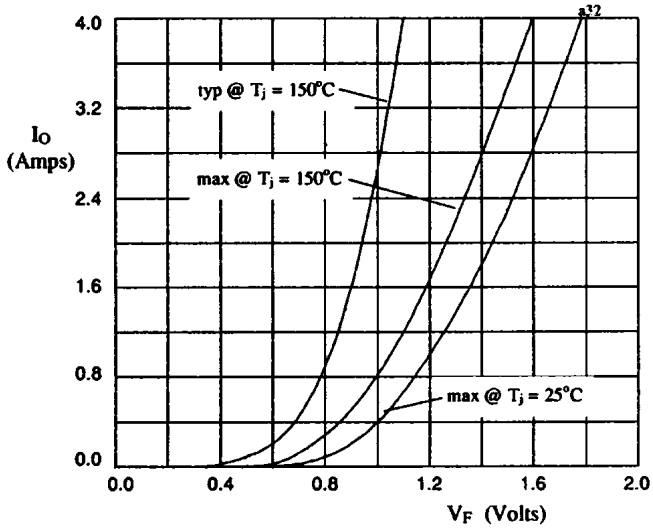

Fig 1. Forward voltage drop against output current per leg.

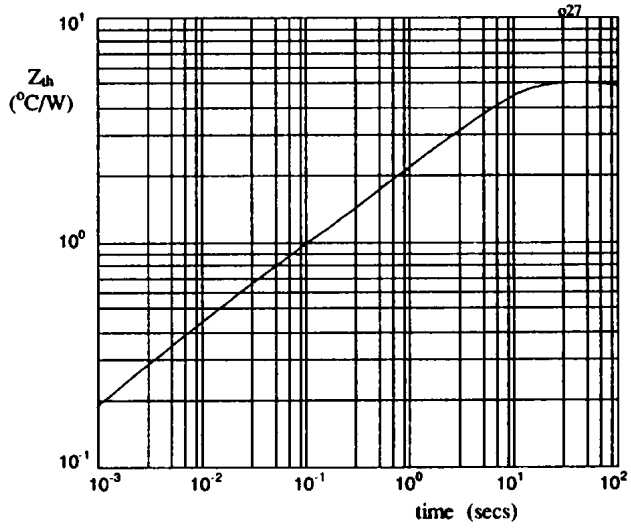

Fig 2. Transient thermal impedance characteristic per leg

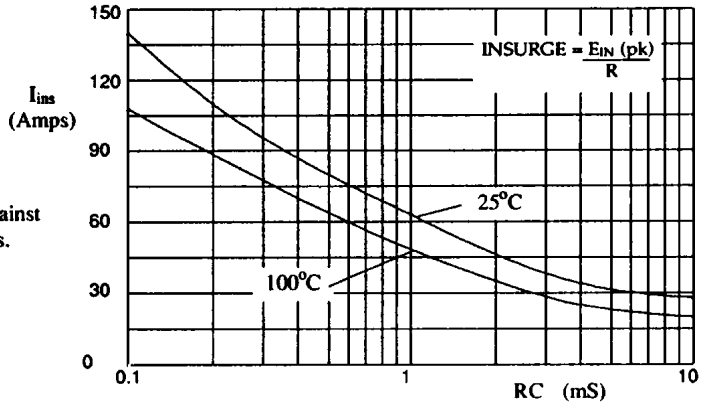

Fig 3. Maximum insurge current against time constant for capacitive loads.