January 9, 1998

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HIGH CURRENT, HIGH DENSITY, FAST RECOVERY DOUBLER AND CENTER TAPS

- High power industrial and military applications
- High forward current applications
- Low thermal impedance
- Low forward voltage drop
- High forward surge ratings

QUICK REFERENCE DATA

- V_R = 1000V
- I_F = 120A
- t_{rr} = 150nS
- I_{FSM} = 750A

ABSOLUTE MAXIMUM RATINGS

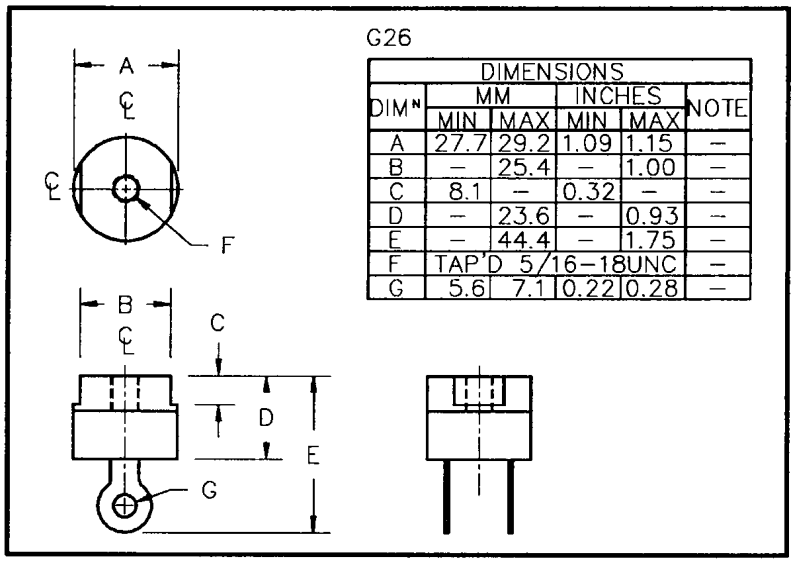
Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current @ 25°C	Average Rectified Current @ 55°C	Average Rectified Current @ 100°C	1 Cycle Surge Current t_p = 8.3mS @ 25°C	1 Cycle Surge Current t_p = 8.3mS @ 100°C
	Volts	Amps	Amps	Amps	Amps	Amps
SCSDF4L	400	60	50	32.5		
SCSNF4L	400	120	100	65	750	600
SCSPF4L	400	120	100	65		

CHARACTERISTICS

Reverse Current @ V_{RWM} @ 25 °C	Reverse Current @ V_{RWM} @ 100 °C	Maximum Forward Voltages V_F @ 18A @ 25°C	Maximum Reverse Recovery Time t_{rr} @ 25°C
µA	µA	Volts	nS
6.0	200	1.1	
6.0	200	1.1	150
6.0	200	1.1	

Operating and Storage temperature range T_{OP} & T_{STG}	Maximum junction - case thermal impedance $R_{\theta JC}$
Volts	°C/W
-55 to +150	0.5

MECHANICAL



G26

DIMENSIONS					
DIMN	MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	27.7	29.2	1.09	1.15	–
B	–	25.4	–	1.00	–
C	8.1	–	0.32	–	–
D	–	23.6	–	0.93	–
E	–	44.4	–	1.75	–
F	TAP'D 5/16–18UNC				–
G	5.6	7.1	0.22	0.28	–

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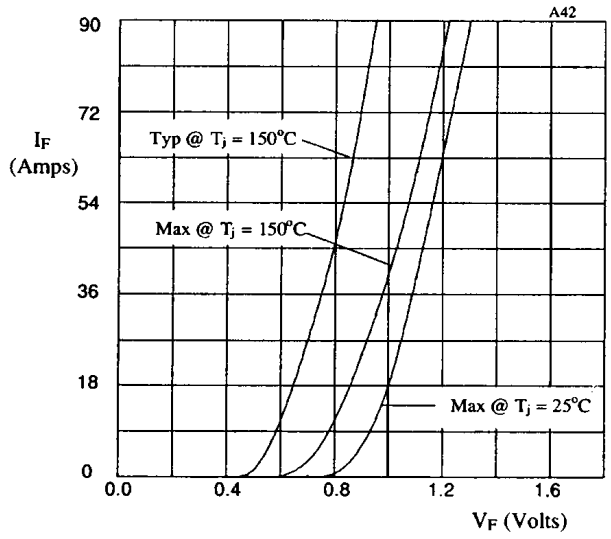


Fig 1. Forward voltage drop per leg as a function of forward current.

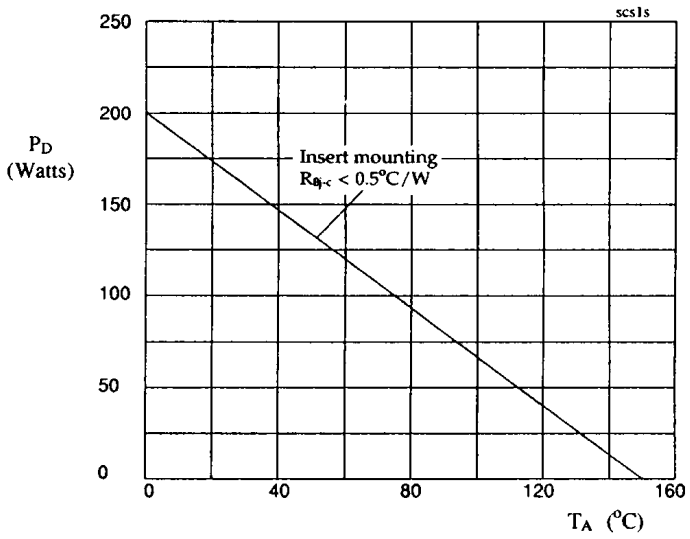


Fig 2. Power dissipation as a function of ambient temperature.

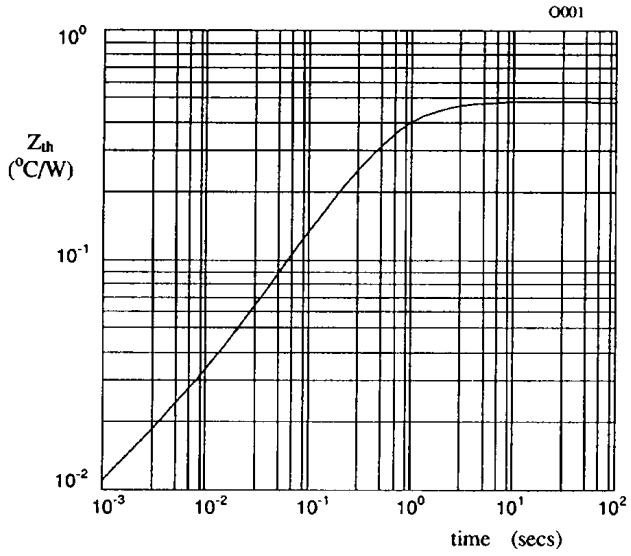


Figure 3. Transient thermal impedance characteristic when insert mounted.

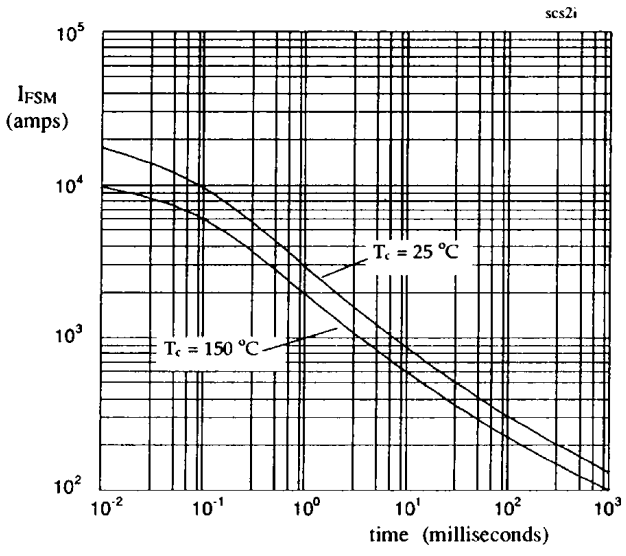


Figure 4. Maximum non-repetitive surge current against pulse width for 25°C and 150°C.