

SEMTECH**FAST RECOVERY HIGH
CURRENT DOUBLER AND
CENTER TAPS****SCSDF4L
SCSNF4L
SCSPF4L**

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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**

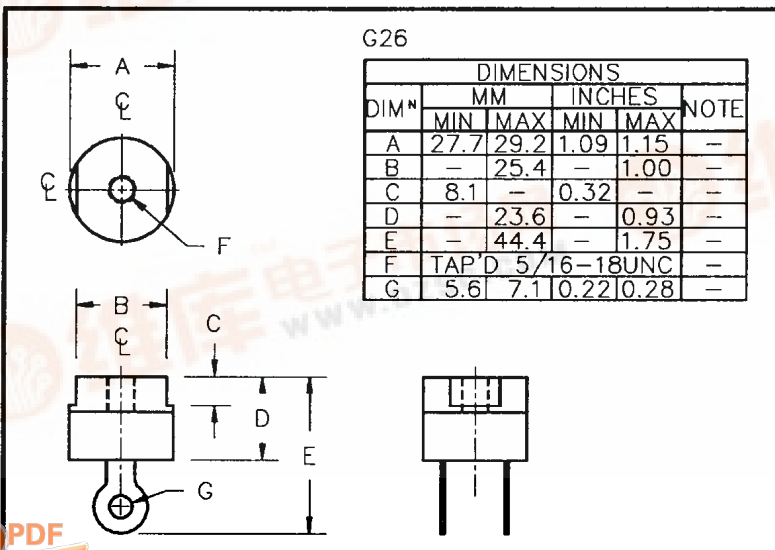
- $V_R = 1000V$
- $I_F = 120A$
- $t_{rr} = 150nS$
- $I_{FSM} = 750A$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current			1 Cycle Surge Current $t_p = 8.3mS$	
		@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 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}		Maximum Forward Voltages $V_F @ 18A @ 25°C$	Maximum Reverse Recovery Time $t_{rr} @ 25°C$
@ 25 °C	@ 100 °C	Volts	nS
μA	μA		
6.0	200	1.1	
6.0	200	1.1	150
6.0	200	1.1	

MECHANICAL

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

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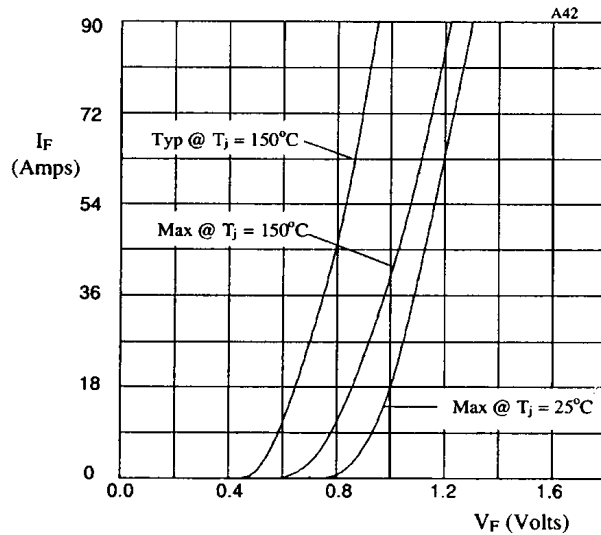


Fig 1. Forward voltage drop per leg as a function of forward current.

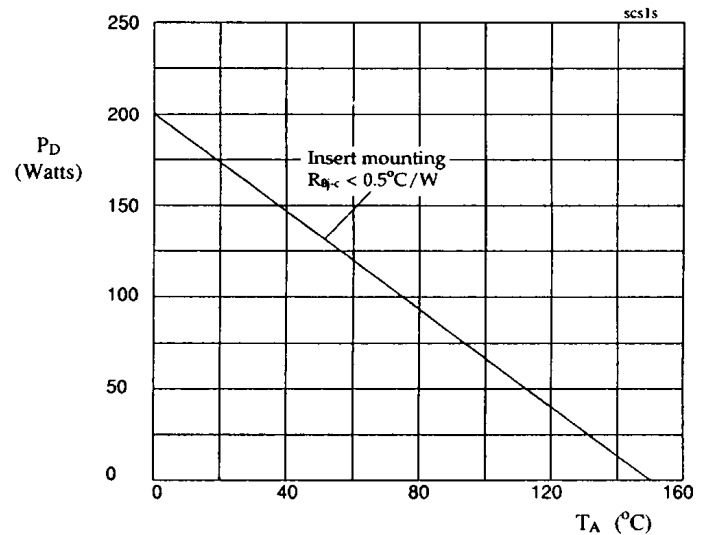


Fig 2. Power dissipation as a function of ambient temperature.

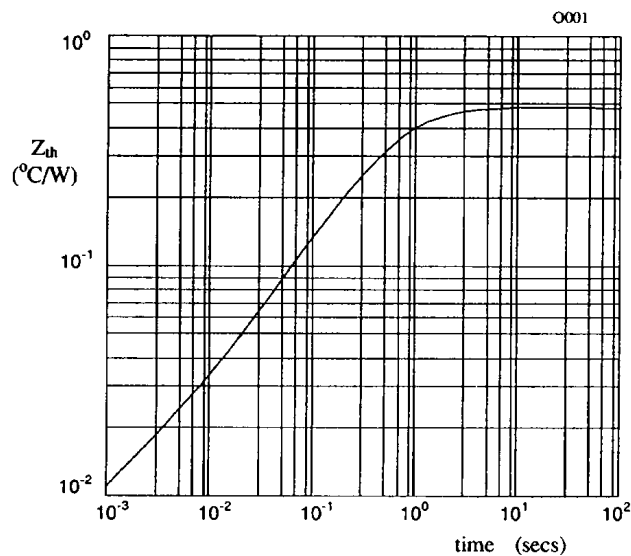


Figure 3. Transient thermal impedance characteristic when insert mounted.

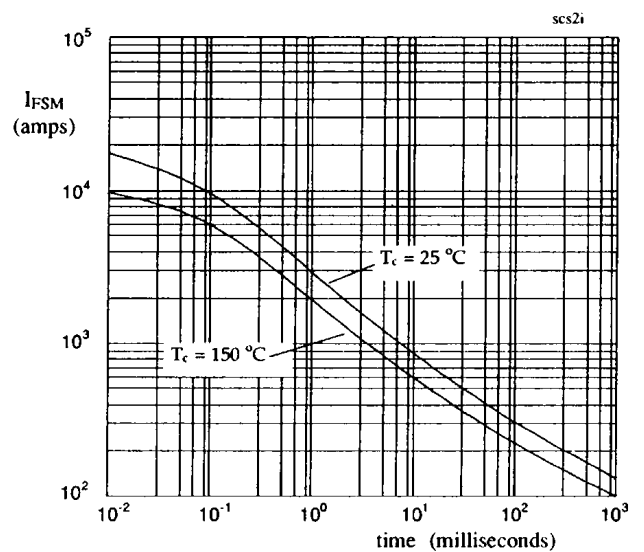


Figure 4. Maximum non-repetitive surge current against pulse width for 25°C and 150°C .