

January 9, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:http://www.semtech.com

HIGH CURRENT, HIGH DENSITY, STANDARD 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

- $V_R = 1000V$
- $I_F = 150A$
- $t_{rr} = 2\mu S$
- $I_{FSM} = 750A$

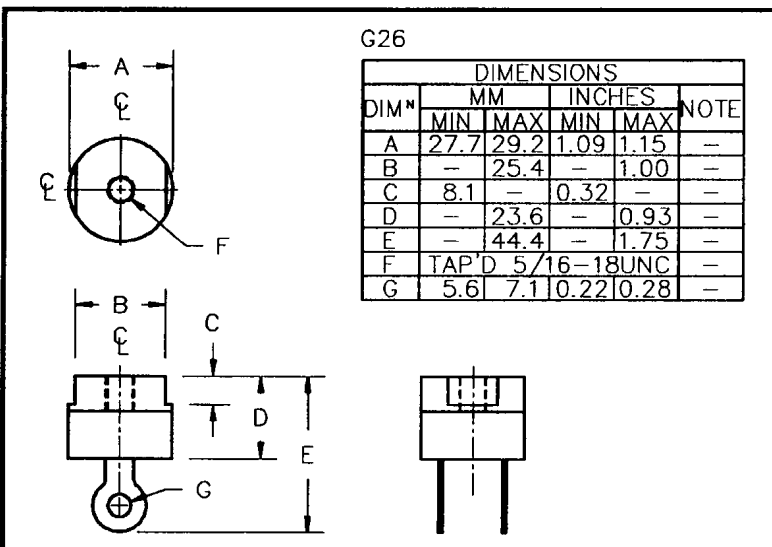
ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM} Volts	Average Rectified Current			1 Cycle Surge Current $t_p = 8.3mS$	
		@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C
		Amps	Amps	Amps	Amps	Amps
SCSDM0L	1000	75	55	35		
SCSNM0L	1000	150	110	70	750	600
SCSPM0L	1000	150	110	70		

CHARACTERISTICS

Reverse Current @ V_{RWM}		Maximum Forward Voltages $V_F @ 18A @ 25°C$ Volts	Maximum Reverse Recovery Time $t_{rr} @ 25°C$ μS
@ 25°C	@ 100°C		
μA	μA		
6.0	200	1.0	
6.0	200	1.0	2.0
6.0	200	1.0	

MECHANICAL



Operating and Storage temperature range $T_{OP} \& T_{STC}$ Volts	Maximum junction - case thermal impedance $R_{\theta jc}$ °C/W
-55 to +150	↑ 0.50 ↓

January 9, 1998

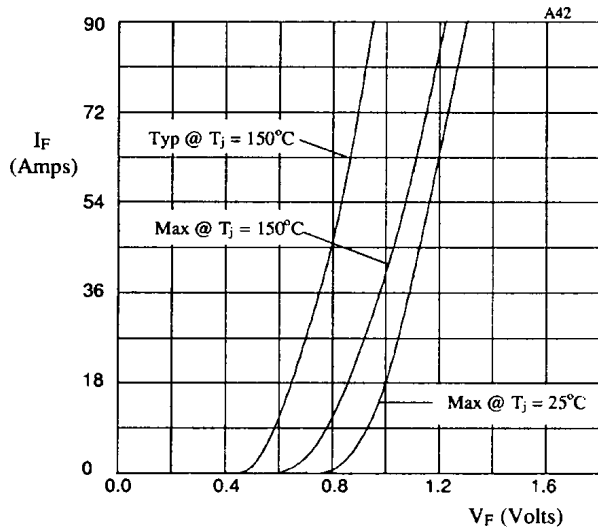


Fig 1. Forward voltage drop per leg as a function of forward current.

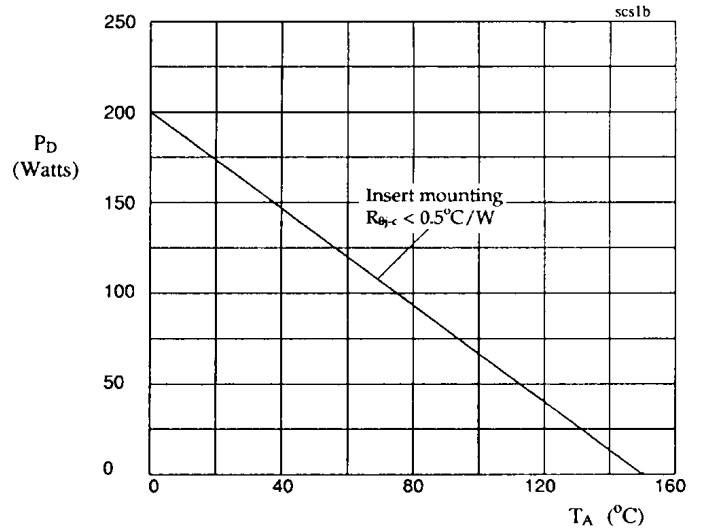


Fig 2. Power dissipation as a function of ambient temperature.

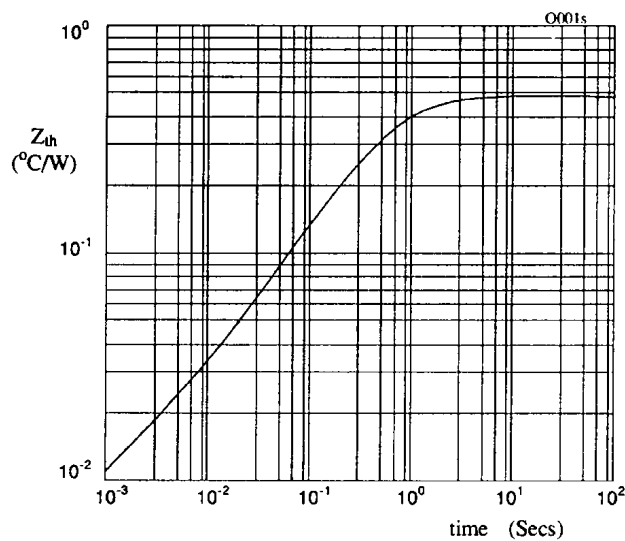


Figure 3. Transient thermal impedance characteristic when insert mounted.

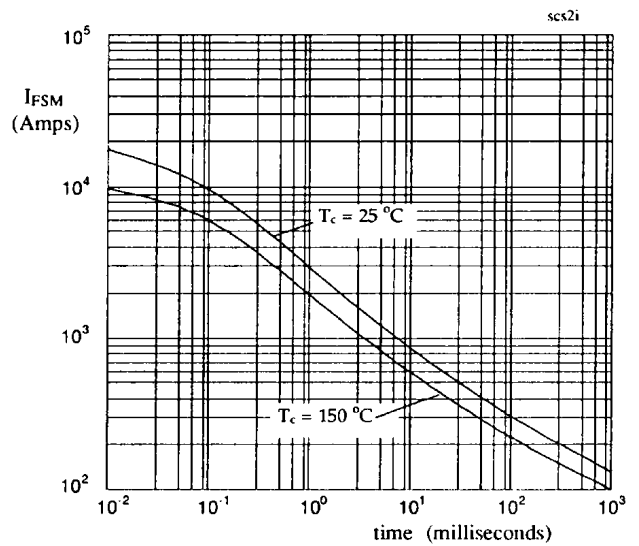


Figure 4. Maximum non-repetitive surge current against pulse width for 25°C and 150°C .