

January 29, 1998

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

FAST RECOVERY, HIGH CURRENT CENTER TAP AND DOUBLER RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Fast reverse recovery time
- Low thermal impedance
- High forward current rating

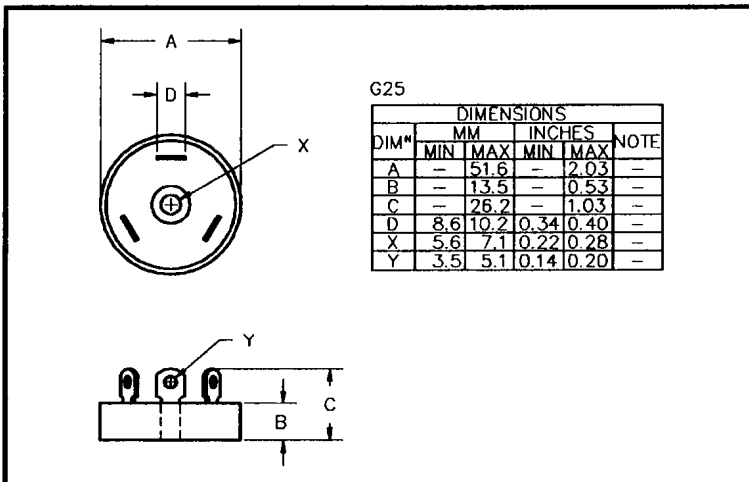
QUICK REFERENCE DATA

- $V_R = 50V - 400V$
- $I_F = 40.0A$
- $t_{rr} = 150nS$
- $V_F = 1.0V$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current (@ case temperature)			1 Cycle Surge Current $t_p = 8.3mS$		Repetitive Surge Current
		@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	@ 25°C
		Volts	Amps	Amps	Amps	Amps	Amps
SCDAR05F	50	↑	↑	↑	↑	↑	↑
SCDAR1F	100	20.0	15.5	9.0	450	300	70.0
SCDAR2F	200	↓	↓	↓	↓	↓	↓
SCDAR4F	400	↓	↓	↓	↓	↓	↓
SCNAR05F SCPAR05F	50	↑	↑	↑	↑	↑	↑
SCNAR1F SCPAR1F	100	40.0	31.0	18.0	450	300	70.0
SCNAR2F SCPAR2F	200	↓	↓	↓	↓	↓	↓
SCNAR4F SCPAR4F	400	↓	↓	↓	↓	↓	↓

MECHANICAL



Maximum thermal impedance
 $R_{\theta JC} = 1.5^{\circ}C/W$

Approximate mass = 75g

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ELECTRICAL CHARACTERISTICS (ratings apply per leg)

Device Type	Reverse Current @ V_{RWM}		Maximum Forward Voltage V_F @ 9.0A @ 25°C	Maximum Reverse Recovery Time
	@ 25 °C	@ 100 °C		
	μA	μA	Volts	nS
SCDAR05F SCDAR1F SCDAR2F SCDAR4F	3.0	60	1.1	150
SCNAR05F SCPAR05F SCNAR1F SCPAR1F SCNAR2F SCPAR2F SCNAR4F SCPAR4F	3.0	60	1.1	

¹ Measured on discrete devices prior to assembly

Operating temperature range -55 °C to +150 °C
Storage temperature range -55 °C to +150 °C

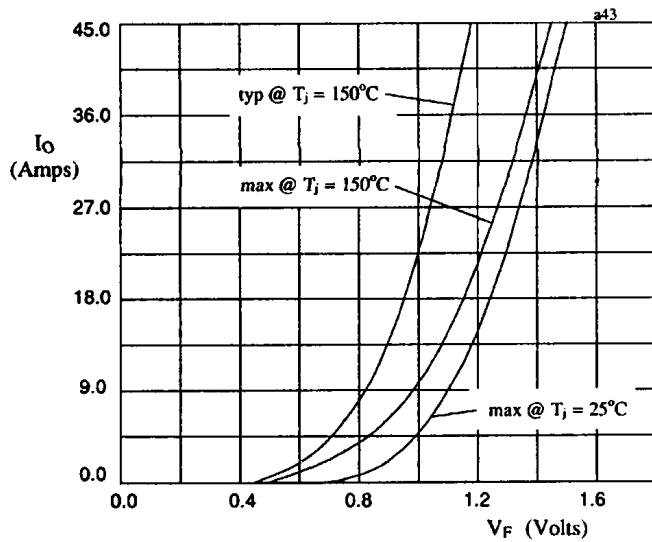


Fig 1. Forward voltage drop against current (per leg)

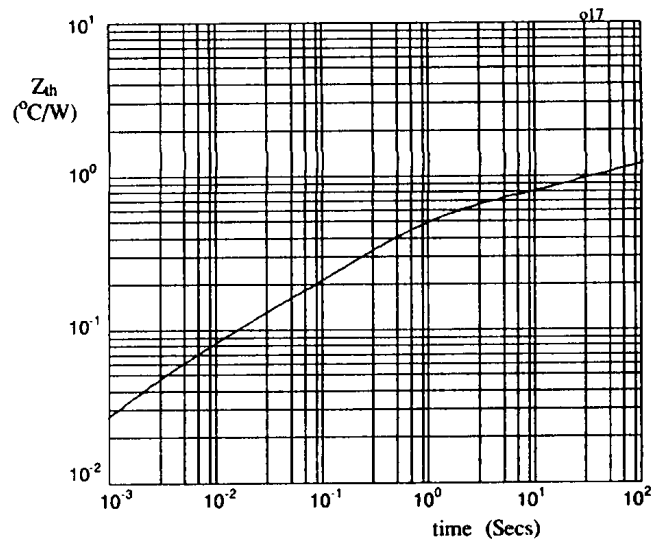


Fig 2. Transient thermal impedance characteristic per leg