

January 8, 1998

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

HIGH VOLTAGE, HIGH DENSITY, FAST RECOVERY LEADED SILICON RECTIFIER ASSEMBLY

- Low reverse recovery time
- Low forward voltage drop
- High thermal shock resistance
- Corona free construction
- Low distributed capacitance

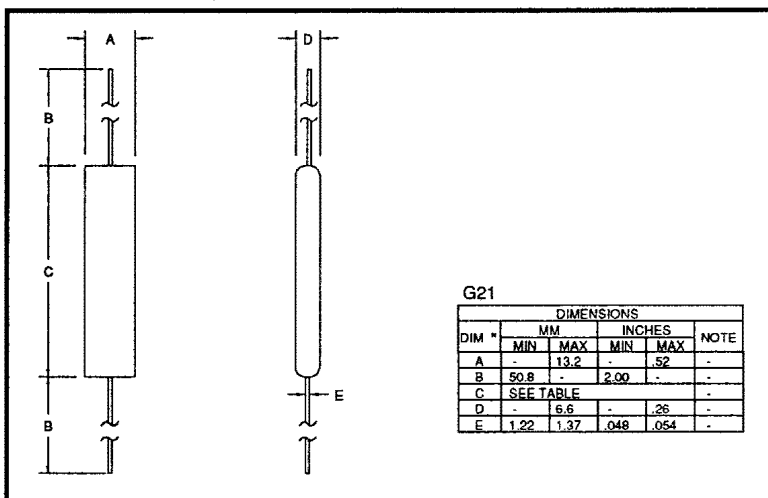
QUICK REFERENCE DATA

- $V_R = 2500V - 12500V$
- $I_F = 0.5A$
- $I_R = 1.0 \mu A$
- $t_{rr} = 150ns$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage (V_{RWM})	Average Rectified Current $I_{F(AV)}$		Repetitive Surge Current	1 Cycle Surge Current $t_p = 8.3ms$ (sinusoidal)		I^2t $t_p = 8.3ms$	Case Length Max
		@ 55 °C	@ 100 °C	@ 25 °C	@ 25 °C	@ 100 °C	@ 25 °C	dim. C
	Volts	Amps	Amps	Amps	Amps	Amps	A ² S	inches
SCF2500	2500	↑	↑	↑	↑	↑	↑	1.145
SCF5000	5000	↑	↑	↑	↑	↑	↑	2.020
SCF7500	7500	0.5	0.3	15	25	12.5	2.6	2.770
SCF10000	10000	↓	↓	↓	↓	↓	↓	3.520
SCF12500	12500	↓	↓	↓	↓	↓	↓	4.270

MECHANICAL



January 8, 1998

ELECTRICAL CHARACTERISTICS

Device Type	Max. Leakage Current @ V_{RWM} I_R		Maximum Forward Voltage drop V_F @ 0.5A	Maximum Reverse Recovery Time t_{rr}
	@ 25 °C	@ 100 °C	@ 25 °C	@ 25 °C
	μA	μA	Volts	nS
SCF2500	↑	↑	3.45	↑
SCF5000			5.75	
SCF7500	1.0	25	9.20	150
SCF10000	↓	↓	11.5	↓
SCF12500			15.0	

(1) measured on discrete devices prior to assembly

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

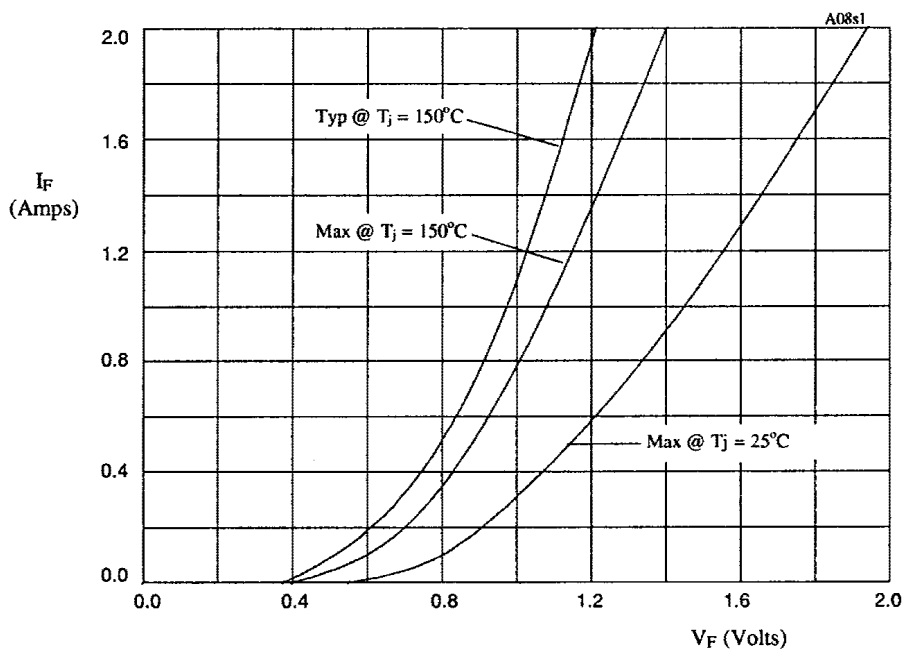
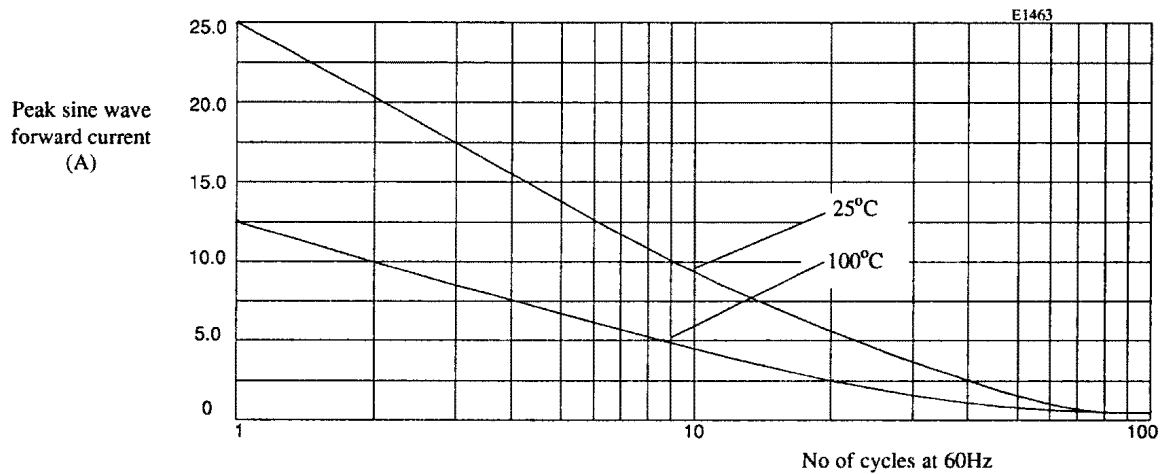
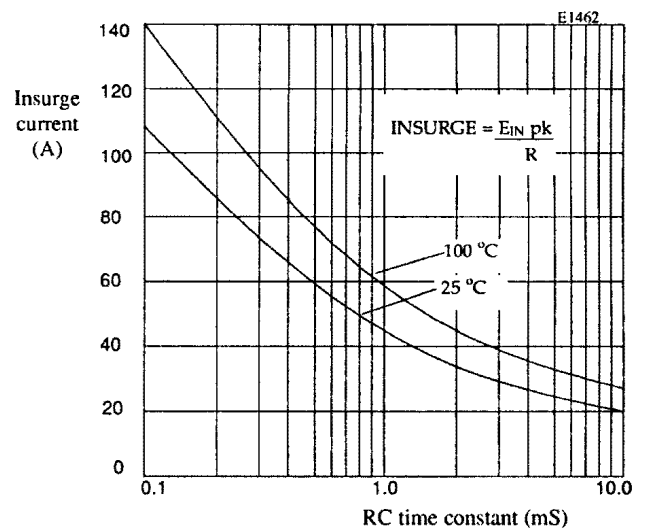
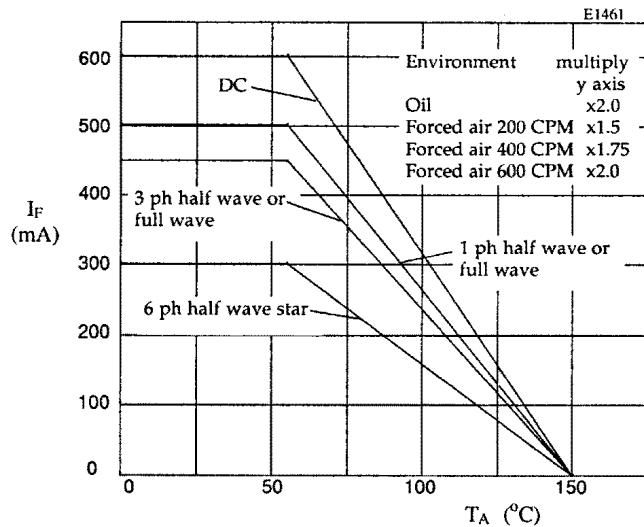


Fig 1. Forward voltage drop as a function of forward current.

TABLE 1

DEVICE	X-AXIS
SCF2500	x3
SCF5000	x5
SCF7500	x8
SCF10000	x10
SCF12500	x13

January 8, 1998



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Semtech:](#)

[SCF5000](#) [SCF10000](#) [SCF12500](#) [SCF7500](#) [SCF2500](#)