

January 9, 1998

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

### FAST RECOVERY, MEDIUM CURRENT CENTER TAP AND DOUBLER RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- Fast reverse recovery time

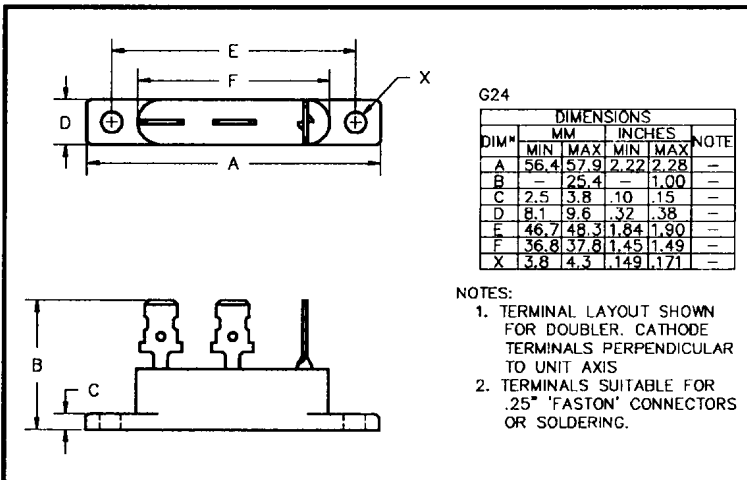
### QUICK REFERENCE DATA

- $V_R = 50V - 400V$
- $I_F = 15.0A$
- $I_R = 1.0 \mu A$
- $t_{rr} = 150nS$

### ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage $V_{RWM}$	Average Rectified Current						1 Cycle Surge Current $t_p = 8.3mS$		Repetitive Surge Current
		(@ case temperature)			(@ ambient temperature)			25°C	100°C	25°C
		55°C	100°C	125°C	25°C	55°C	100°C			
		Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCDA05F	50	↑	↑	↑	↑	↑	↑	↑	↑	
SCDA1F	100	7.5	5.0	2.5	1.50	1.15	0.6	150	100	25
SCDA2F	200	↓	↓	↓	↓	↓	↓	↓	↓	
SCDA4F	400	↓	↓	↓	↓	↓	↓	↓	↓	
SCNA05F SCPA05F	50	↑	↑	↑	↑	↑	↑	↑	↑	
SCNA1F SCPA1F	100	15.0	10.0	5.0	3.00	2.30	1.2	150	100	25
SCNA2F SCPA2F	200	↓	↓	↓	↓	↓	↓	↓	↓	
SCNA4F SCPA4F	400	↓	↓	↓	↓	↓	↓	↓	↓	

### MECHANICAL



Maximum thermal impedance  
 $R_{\theta JC} = 4^{\circ}C/W$

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**ELECTRICAL CHARACTERISTICS (apply per leg)**

Device Type	Reverse Current @ $V_{RWM}$		Maximum Forward Voltage $V_F @ 3.0A @ 25^\circ C$	Maximum Reverse Recovery Time
	@ 25 °C	@ 100 °C		
	$\mu A$	$\mu A$	Volts	nS
SCDA05F SCDA1F SCDA2F SCDA4F	1.0	20	1.1	150
SCNA05F SCPA05F SCNA1F SCPA1F SCNA2F SCPA2F SCNA4F SCPA4F	1.0	20	1.1	

<sup>1</sup> Measured on discrete devices prior to assembly

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

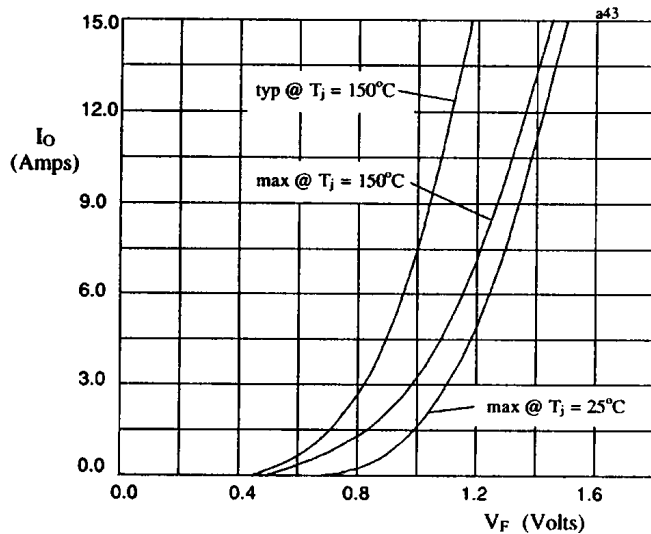


Fig 1. Forward voltage drop against current (per leg)

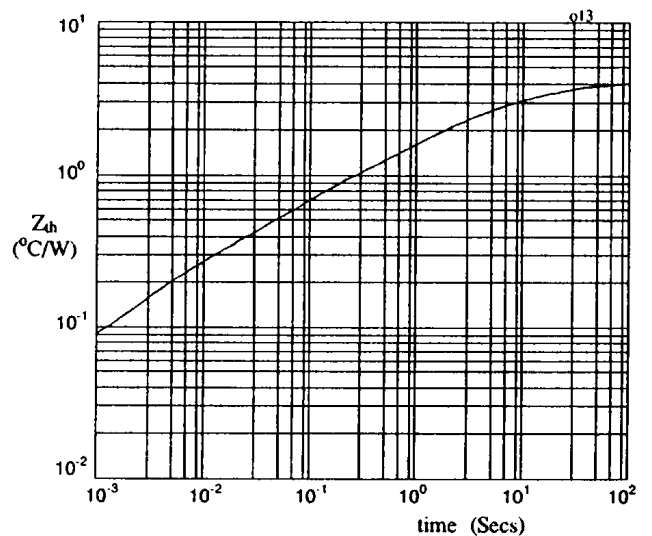


Fig 2. Transient thermal impedance characteristic per leg