

January 29, 1998

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

FAST RECOVERY, MEDIUM CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

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

QUICK REFERENCE DATA

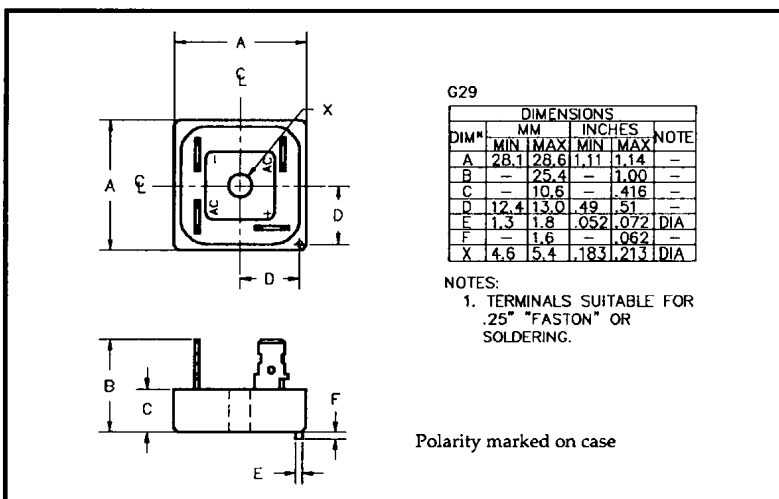
- $V_R = 50V - 400V$
- $I_F = 20.0A$
- $I_R = 2.0 \mu A$
- $t_{rr} = 150ns$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$						1 Cycle Surge Current $I_{FSM} t_p = 8.3mS$	
		(@ case temperature)			(@ ambient temperature)				
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCBA05F	50	20	15	10	5.0	4.0	2.5	150	80
SCBA1F	100								
SCBA2F	200								
SCBA4F	400								

$$R_{\theta JC} = 2.0^{\circ}C/W$$

MECHANICAL



SCBA4F is available in Europe to DEF STAN 59-61/90/207 release to F and FX levels.

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ELECTRICAL CHARACTERISTICS

Device Type	Maximum Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage V_F @ 3A/leg	Reverse Recovery Time ¹ t_{rr} @ 25°C	Maximum operating & storage temp. range. T_{OP} T_{STG}
	@ 25°C	@ 100°C			
	μA	μA	Volts	nS	°C
SCBA05F	2.0	50	1.1	150	-55 to +150
SCBA1F				150	
SCBA2F				150	
SCBA4F				150	

¹ Measured on discrete devices prior to assembly

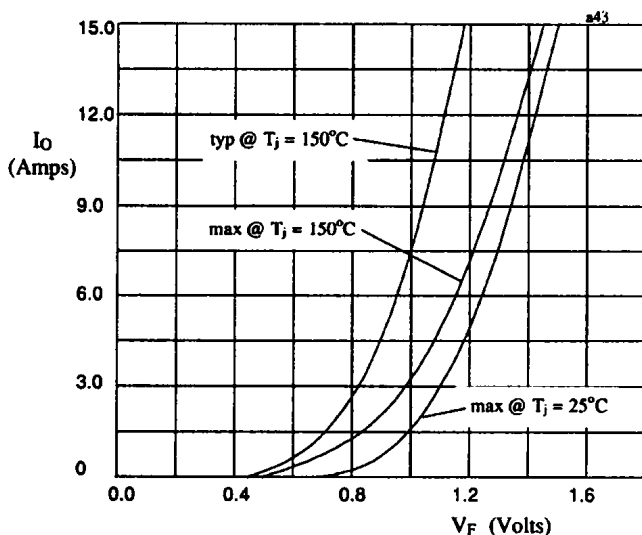


Fig 1. Forward voltage drop against output current per leg.

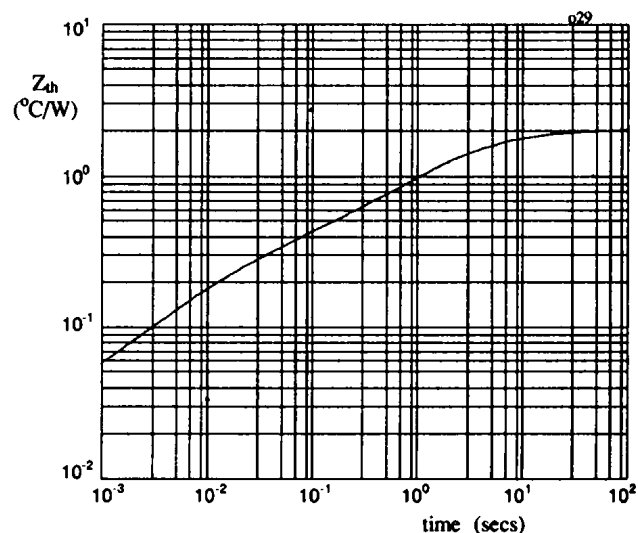


Fig 2. Transient thermal impedance characteristic per leg

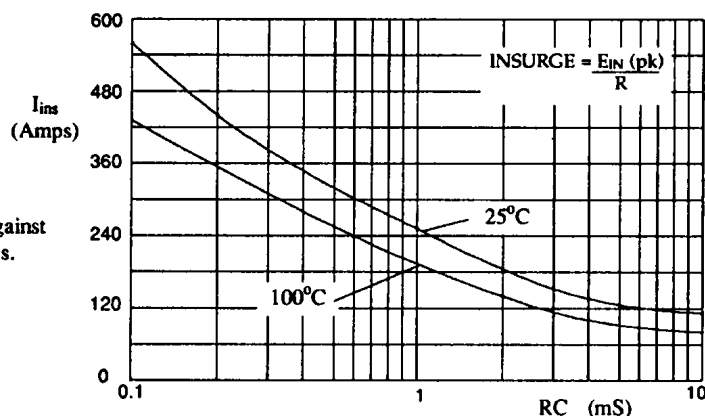


Fig 3. Maximum insurge current against time constant for capacitive loads.