

SEMTECH**FAST RECOVERY 1 PHASE****SCBA05F SCBA1F****FULL WAVE BRIDGE RECTIFIERS****SCBA2F SCBA4F**

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FAST RECOVERY, MEDIUM CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES**QUICK REFERENCE DATA**

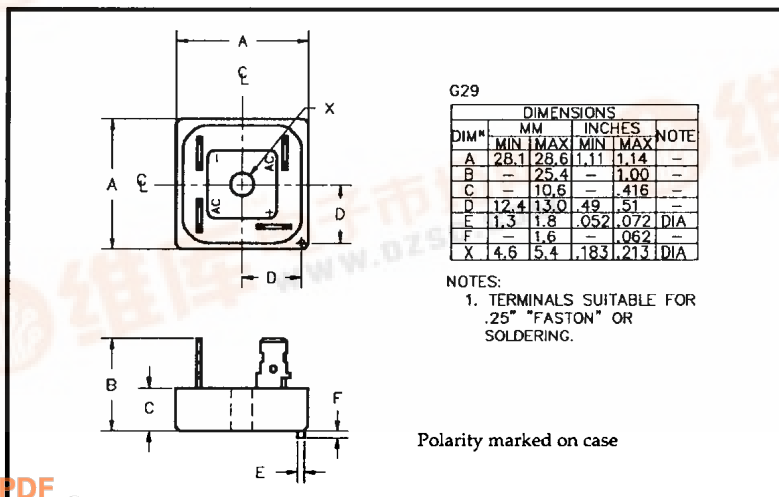
- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- Fast reverse recovery time

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

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V _{RWM}	Average Rectified Current I _{F(AV)}						1 Cycle Surge Current	
		(@ case temperature)			(@ ambient temperature)			I _{FSM} t _p = 8.3mS	
		@ 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								
SCBA1F	100								
SCBA2F	200	20	15	10	5.0	4.0	2.5	150	80
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 SCBA1F SCBA2F SCBA4F	2.0	50	1.1	150 150 150 150	-55 to +150

¹ Measured on discrete devices prior to assembly

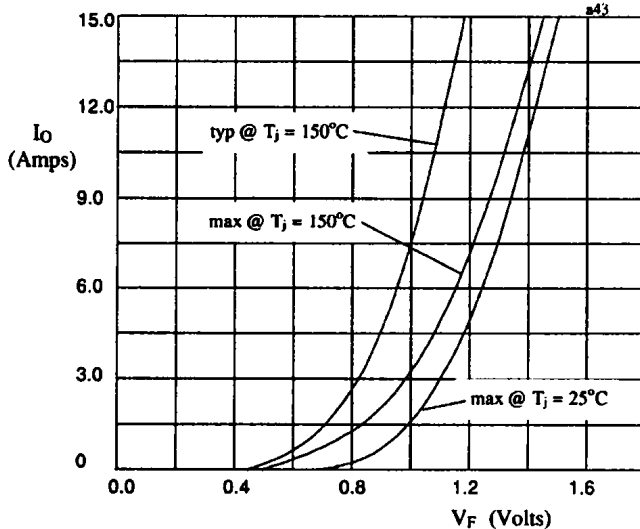


Fig 1. Forward voltage drop against output current per leg.

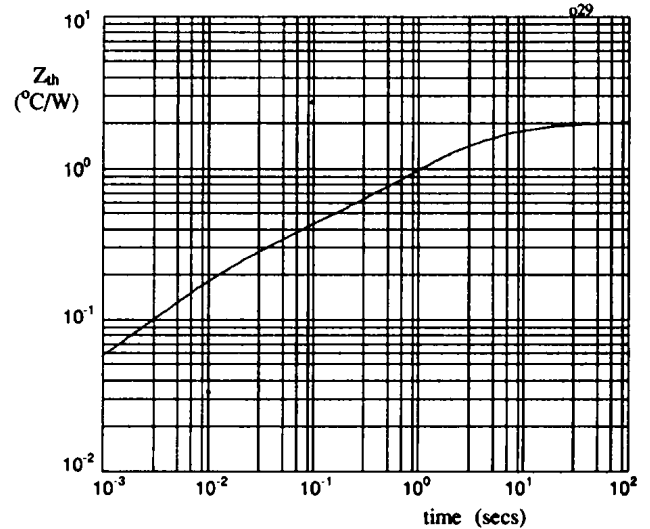


Fig 2. Transient thermal impedance characteristic per leg

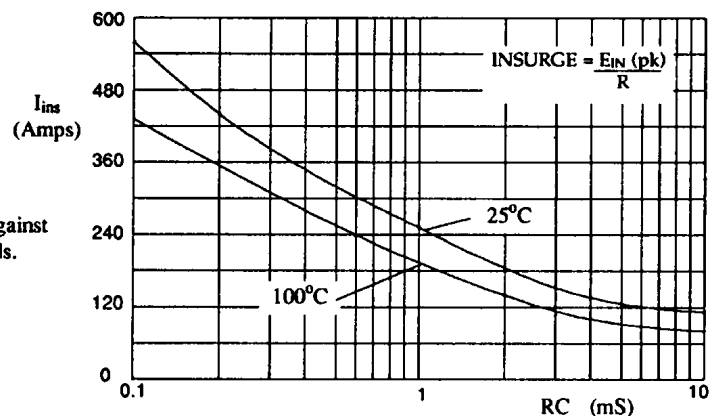


Fig 3. Maximum insurge current against time constant for capacitive loads.