January 16, 1998

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

STANDARD RECOVERY, LOW CURRENT 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- Insulated electrical connections

QUICK REFERENCE DATA

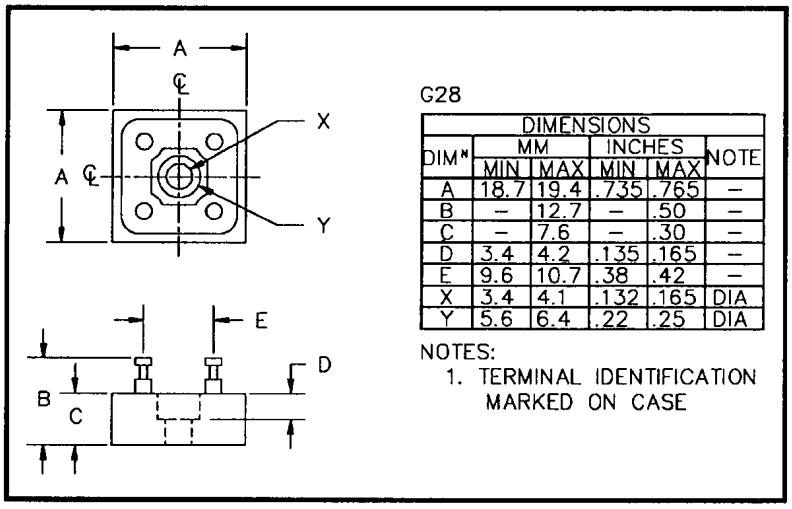
- V_R = 200V - 600V
- I_F = 12A
- I_R = 2.0µA
- t_{rr} = 2.0µS

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$ (@ case temperature)			(@ ambient temperature)			1 Cycle Surge Current I_{FSM} t_p = 8.3mS		Repetitive Surge Current I_{FRM}
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	@ 25 °C
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SCBH2 SCBH4 SCBH6	200 400 600	12	9.0	8.5	4.0	3.0	1.7	150	100	50

$R_{\theta JC}$ = 3.3°C/W

MECHANICAL



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DIM"	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	18.7	19.4	.735	.765	–
B	–	12.7	–	.50	–
C	–	7.6	–	.30	–
D	3.4	4.2	.135	.165	–
E	9.6	10.7	.38	.42	–
X	3.4	4.1	.132	.165	DIA
Y	5.6	6.4	.22	.25	DIA

NOTES:
1. TERMINAL IDENTIFICATION MARKED ON CASE

SCBH6 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	µS	°C
SCBH2 SCBH4 SCBH6	2.0	50	1.0	2.0	-55 to +150

[1] Measured on discrete devices prior to assembly

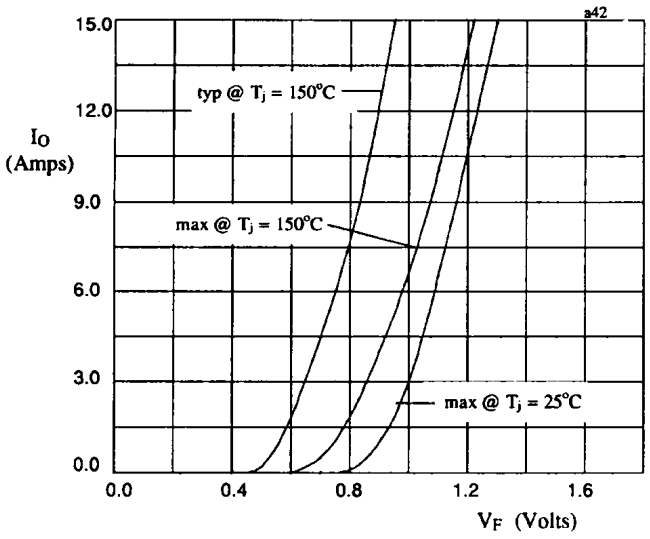

Fig 1. Forward voltage drop against output current per leg.

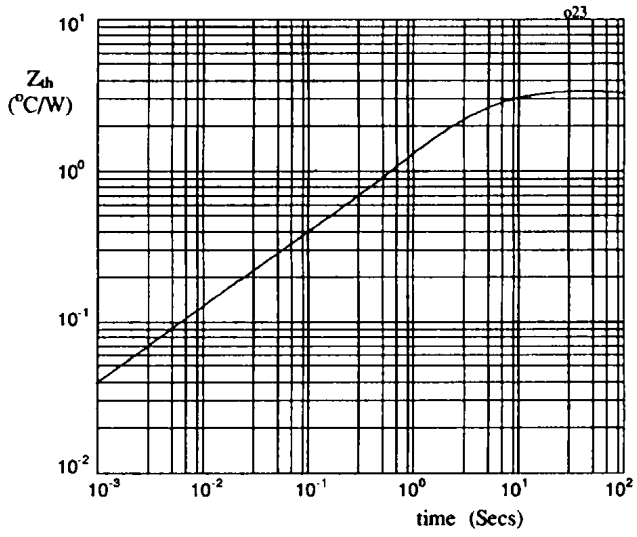

Fig 2. Transient thermal impedance characteristic per leg

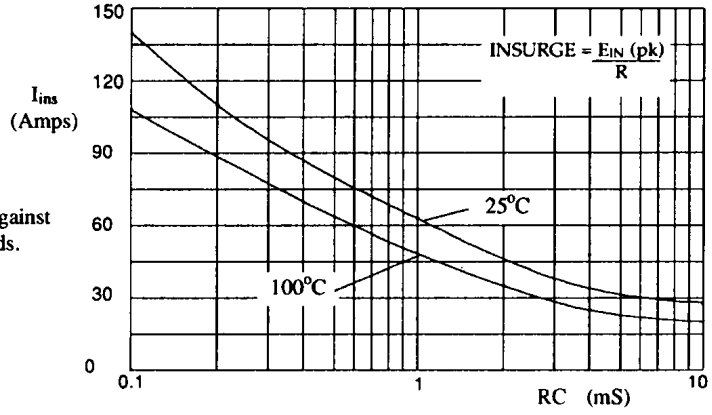

Fig 3. Maximum insurge current against time constant for capacitive loads.