

January 16, 1998

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

STANDARD RECOVERY, LOW CURRENT 3-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

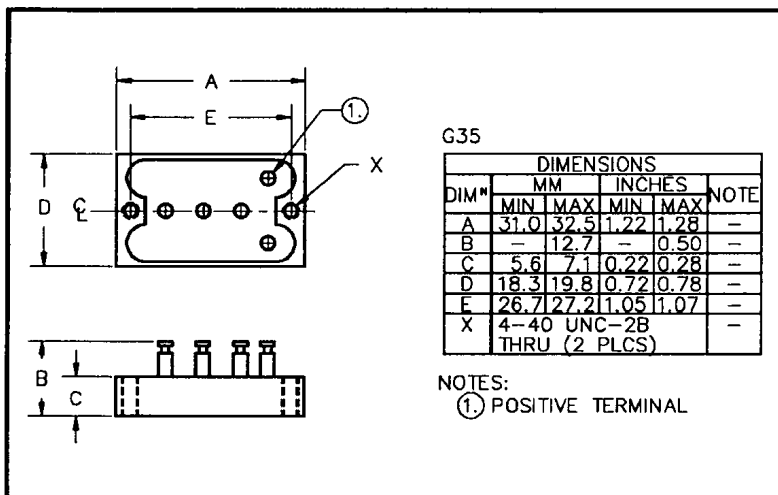
- $V_R = 50V - 600V$
- $I_F = 10A$
- $I_R = 3.0 \mu A$
- $t_{rr} = 2.0 \mu s$

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
SC3BH05	50								
SC3BH1	100								
SC3BH2	200	10	7	5	4	3	1.7	150	100
SC3BH4	400								
SC3BH6	600								

$$R_{\theta JC} = 4.5^\circ C/W$$

MECHANICAL



SC3BH6 is available in Europe to DEF STAN 59-61/90/208 release to F and FX levels.

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ELECTRICAL CHARACTERISTICS

Device Type	Reverse Leakage Current I_R @ V_{RWM}		Maximum Forward Voltage V_F @ 3A/leg @ 25°C	Maximum Reverse Recovery Time t_{rr} @ 25°C	Maximum operating & storage temp range. T_{OP} T_{STG}
	@ 25°C	@ 100°C			
	μA	μA	Volts	μS	°C
SC3BH05 SC3BH1 SC3BH2 SC3BH4 SC3BH6	3.0	60	1.0	2.0	- 55 to +150

¹ Measured on discrete devices prior to assembly

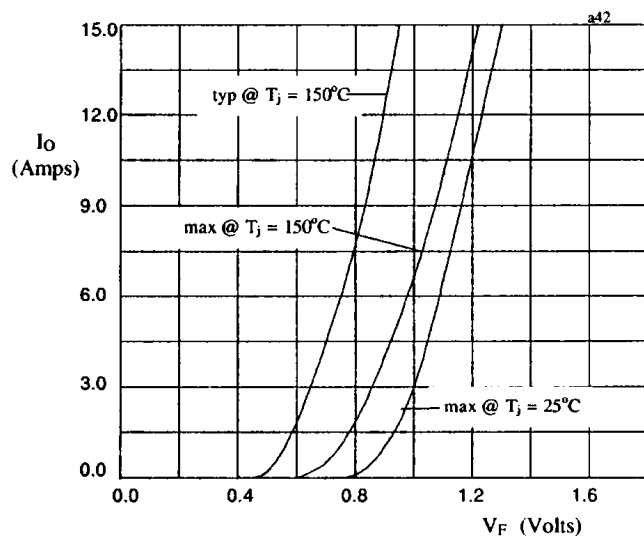


Fig 1. Forward voltage drop against output current per leg

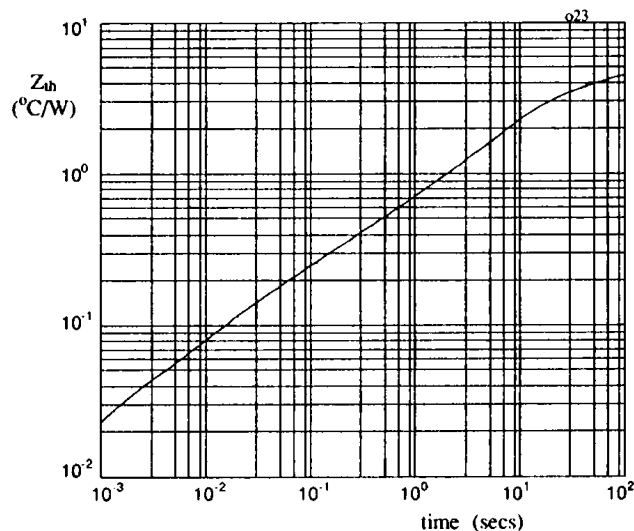


Fig 2. Transient thermal impedance characteristic per leg