

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

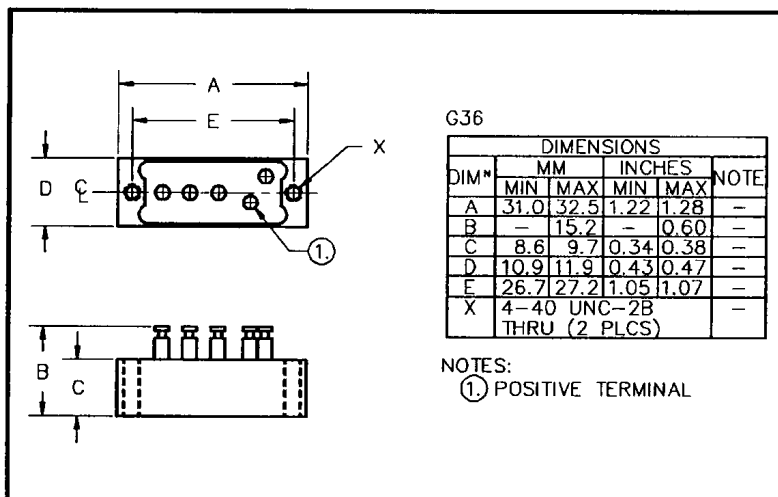
- $V_R = 50V - 600V$
- $I_F = 5A$
- $I_R = 3.0\mu A$
- $t_{rr} = 2.0\mu S$

ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$						1 Cycle Surge Current I_{FSM} @ $t_p = 8.3mS$	
		@ case temperature			@ ambient temperature			@ 25°C	@ 100°C
		@ 55°C	@ 100°C	@ 125°C	@ 25°C	@ 55°C	@ 100°C		
		Volts	Amps	Amps	Amps	Amps	Amps	Amps	Amps
SC3BJ05	50								
SC3BJ1	100								
SC3BJ2	200	5.0	3.0	2.0	2.0	1.5	1.0	50	35
SC3BJ4	400								
SC3BJ6	600								

$R_{\theta JC} = 6.0^\circ C/W$

MECHANICAL



SC3BJ6 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	Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Forward Voltage $V_F @ 1A/leg @ 25^\circ C$	Maximum Reverse Recovery Time ¹ $t_{rr} @ 25^\circ C$	Maximum operating & storage temp range.	
	@ 25°C	@ 100°C			T_{OP}	T_{STG}
	μA	μA	Volts	μS	°C	
SC3BJ05 SC3BJ1 SC3BJ2 SC3BJ4 SC3BJ6	3.0	75	1.1	2.0	-55 to +150	

¹ Measured on discrete devices prior to assembly

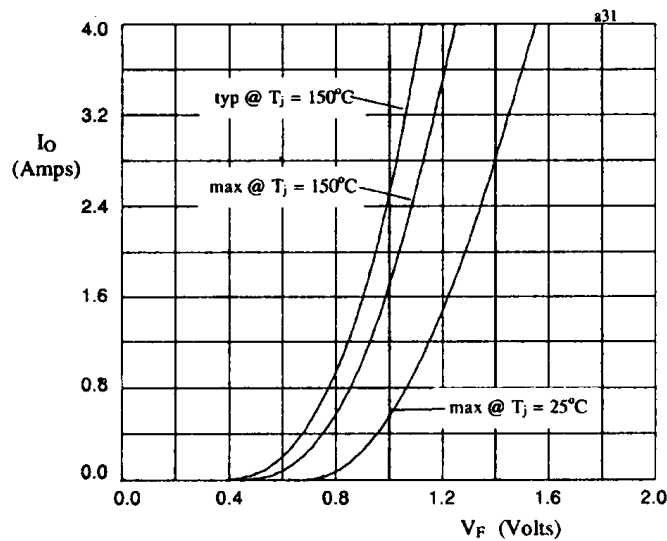


Fig 1. Forward voltage drop against output current per leg

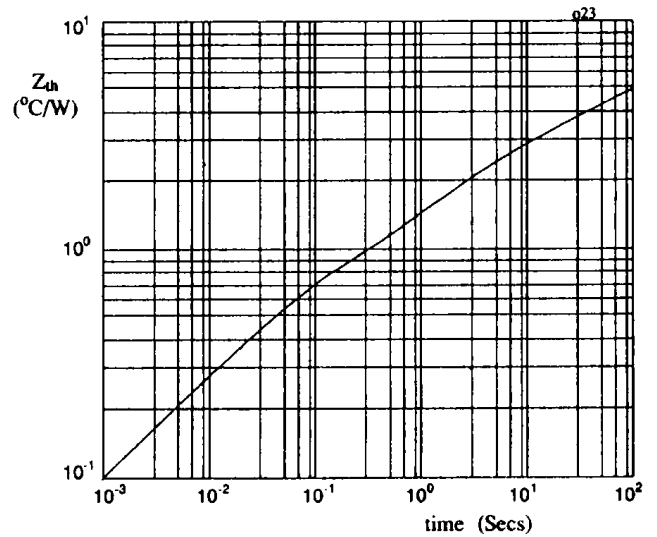


Fig 2. Transient thermal impedance characteristic per leg