January 16, 1998

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

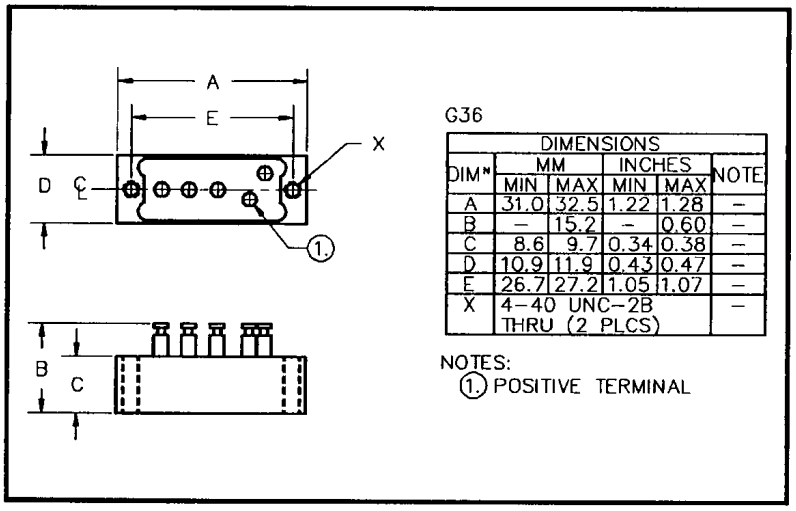
- V_R = 50V - 600V
- I_F = 5A
- I_R = 3.0µA
- t_{rr} = 2.0µS

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	
		@ 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
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°C/W

MECHANICAL



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DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	31.0	32.5	1.22	1.28	–
B	–	15.2	–	0.60	–
C	8.6	9.7	0.34	0.38	–
D	10.9	11.9	0.43	0.47	–
E	26.7	27.2	1.05	1.07	–
X	4–40 UNC–2B THRU (2 PLCS)				–

NOTES:
① POSITIVE TERMINAL

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} @ 25°C	Maximum Reverse Leakage Current I_R @ V_{RWM} @ 100°C	Maximum Forward Voltage V_F @ 1A/leg @ 25°C	Maximum Reverse Recovery Time[1] t_{rr} @ 25°C	Maximum operating & storage temp range. 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

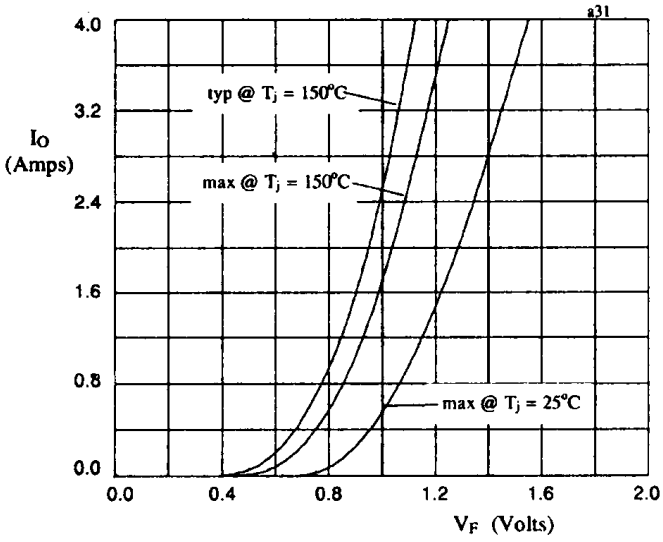

Fig 1. Forward voltage drop against output current per leg

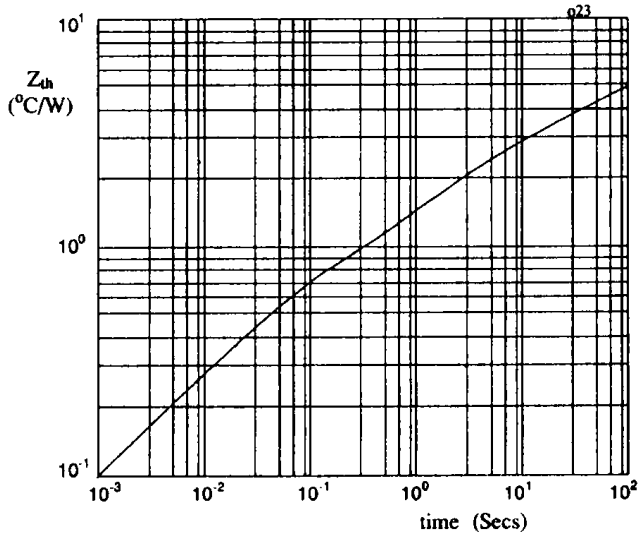

Fig 2. Transient thermal impedance characteristic per leg