January 16, 1998

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

FAST RECOVERY, LOW CURRENT 3-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

- Low forward voltage drop
- Low reverse leakage current
- Subminiature design
- V_{RWM} up to 2500V
- PCB mounting

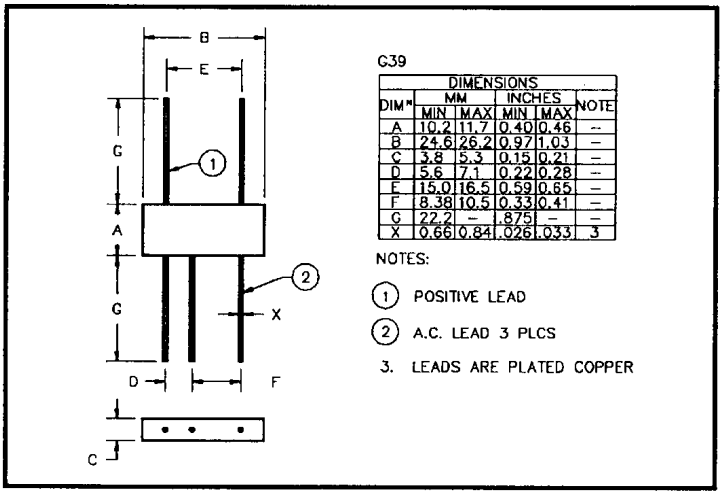
QUICK REFERENCE DATA

- V_R = 50V - 2500V
- I_F = 0.5 - 2.0A
- I_R = 3.0µA
- t_{rr} = 150 - 300nS

ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$		Reverse Leakage Current I_R @ V_{RWM}		Forward Voltage drop / leg @ 25°C V_F @ 1A * @ 100mA	Reverse Recovery Time [1] t_{rr}
		@ 55 °C	@ 100 °C	@ 25 °C	@ 100 °C		@ 25°C
	Volts	Amps	Amps	µA	µA	Volts	µS
S3BR05F	50	2.0	1.2	3.0	75	1.2	150
S3BR1F	100	2.0	1.2	3.0	75	1.2	150
S3BR2F	200	2.0	1.2	3.0	75	1.2	150
S3BR4F	400	2.0	1.2	3.0	75	1.2	150
S3BR6F	600	2.0	1.2	3.0	75	1.2	250
S3BR25F	2500	0.5	0.3	3.0	75	* 5.0	300

MECHANICAL



C39

DIM*	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	10.2	11.7	0.40	0.46	--
B	24.6	26.2	0.97	1.03	--
C	3.8	5.3	0.15	0.21	--
D	5.6	7.1	0.22	0.28	--
E	15.0	16.5	0.59	0.65	--
F	8.38	10.5	0.33	0.41	--
G	22.2	--	.875	--	--
X	0.66	0.84	.026	.033	3

NOTES:

(1) POSITIVE LEAD

(2) A.C. LEAD 3 PLCS

3. LEADS ARE PLATED COPPER

[1] Measured on discrete devices prior to assembly

S3BR4F is available in Europe to DEF STAN 59-61/90/208 release to F and FX levels.

© 1997 SEMTECH CORP.

January 16, 1998

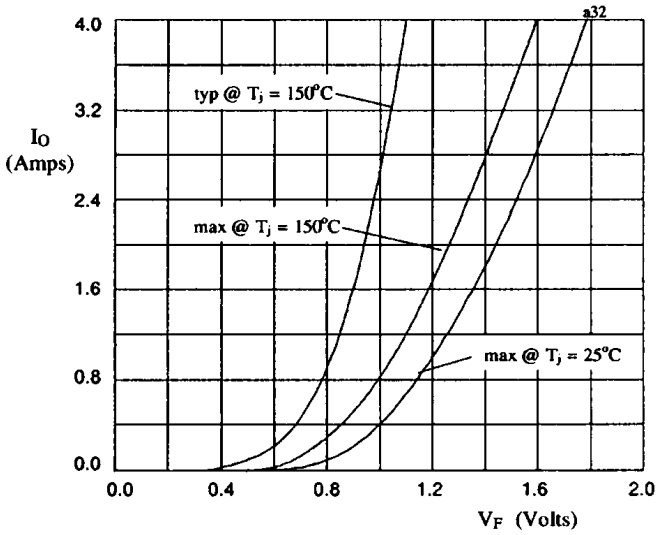


Fig 1. Forward voltage drop against output current per leg for S3BR05F thru S3BR6F.

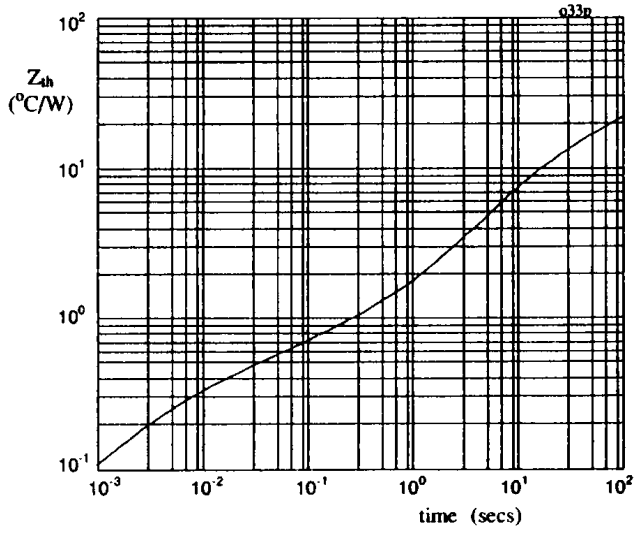


Fig 2. Transient thermal impedance characteristic per leg for S3BR05F thru S3BR6F

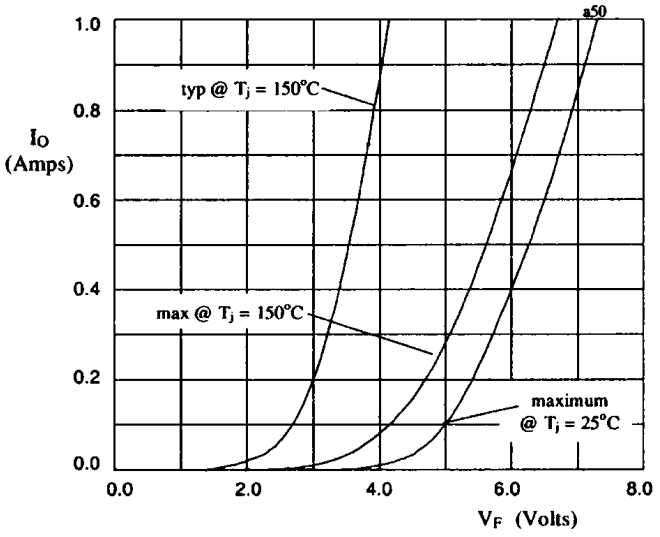


Fig 3. Forward voltage drop against output current per leg for S3BR25F.

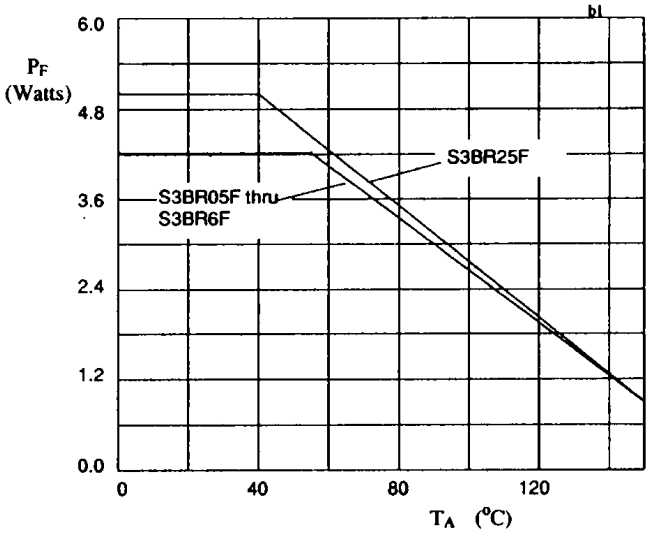


Fig 4. Power derating characteristics when p.c.b mounted

© 1997 SEMTECH CORP.