January 16, 1998

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

FAST RECOVERY, PCB MOUNTING, 1-PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLIES

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

QUICK REFERENCE DATA

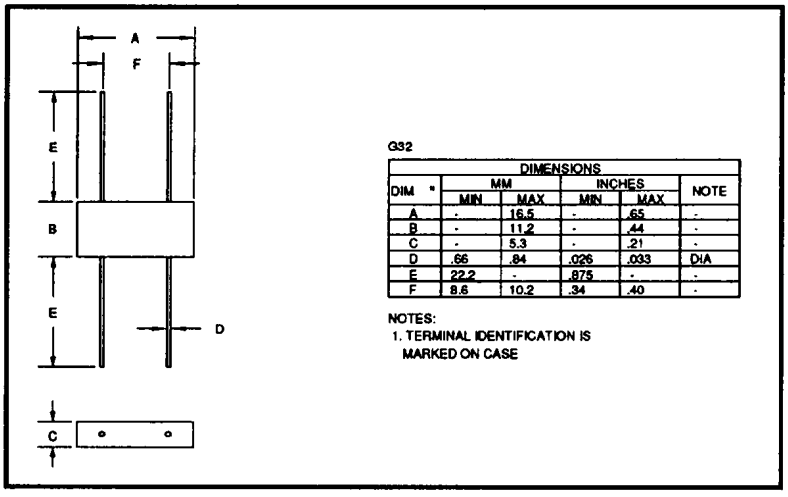
- V_R = 50V - 2500V
- I_F = 0.36 - 1.0A
- I_R = 2.0 µA
- t_{rr} = 150 - 500nS

ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS

Device Type	Working Reverse Voltage V_{RWM}	Average Rectified Current $I_{F(AV)}$		Repetitive Surge Current I_{FRM}	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	@ 25°C	@ 100°C		@ 25 °C
	Volts	Amps	Amps	Amps	µA	µA	Volts	nS
SBR05F	50	1.0	0.65	10	2.0	50	1.2	150
SBR1F	100	1.0	0.65	10	2.0	50	1.2	150
SBR2F	200	1.0	0.65	10	2.0	50	1.2	150
SBR4F	400	1.0	0.65	10	2.0	50	1.2	150
SBR6F	600	1.0	0.65	10	2.0	50	1.2	250
SBR8F	800	1.0	0.65	10	2.0	50	1.5	300
SBR10F	1000	1.0	0.65	10	2.0	50	1.5	500
SBR25F	2500	0.36	0.23	2.5	2.0	50	* 5.0	300

[1] Measured on discrete devices prior to assembly

MECHANICAL



G32

DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	-	16.5	-	.65	-
B	-	11.2	-	.44	-
C	-	5.3	-	.21	-
D	.66	.84	.026	.033	DIA
E	22.2	-	.875	-	-
F	8.6	10.2	.34	.40	-

NOTES:
1. TERMINAL IDENTIFICATION IS MARKED ON CASE

SBR4F is available in Europe to DEF STAN 59-61/90/213 release to F and FX levels.

January 16, 1998

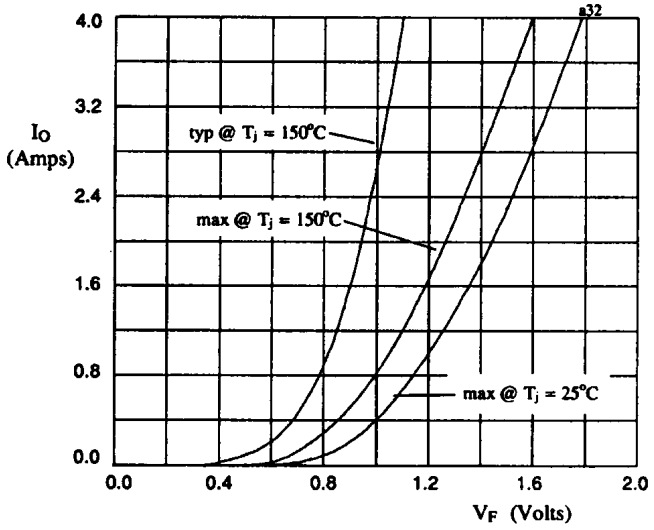


Fig 1. Forward voltage drop against output current per leg for SBR05F thru SBR6F.

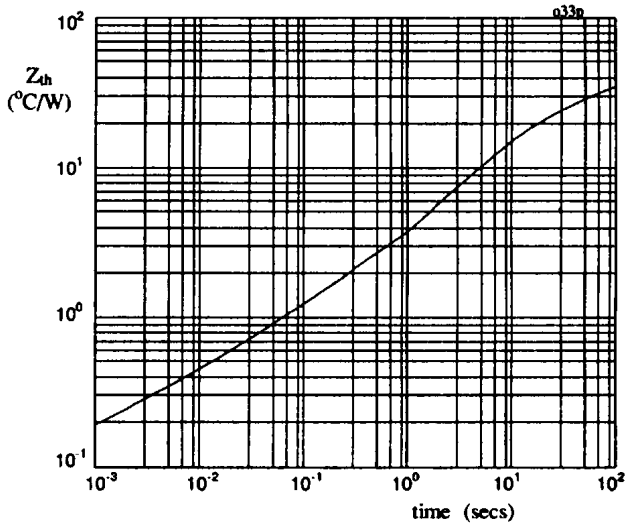


Fig 2. Transient thermal impedance characteristic per leg for SBR05F thru SBR10F

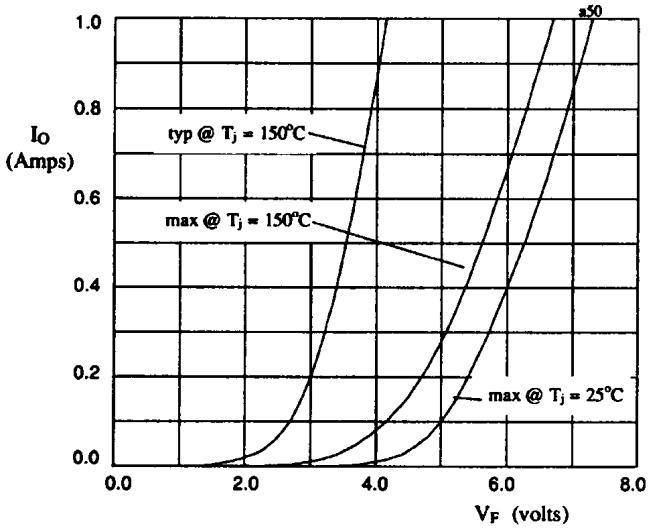


Fig 3. Forward voltage drop against output current per leg for SBR25F

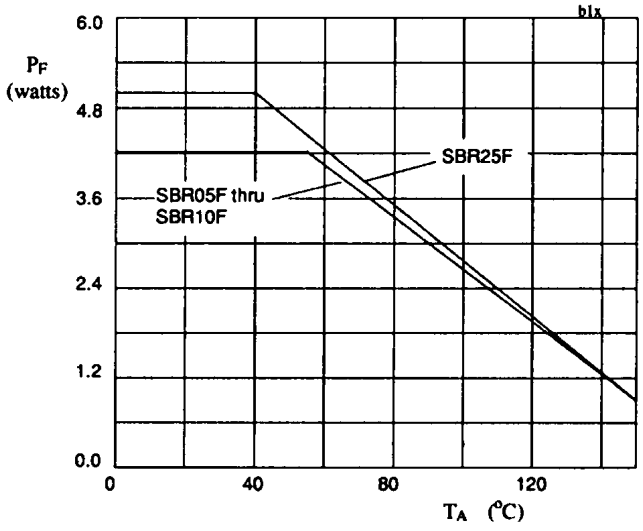


Fig 4. Power derating characteristics when p.c.b mounted