January 16, 1998

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

STANDARD 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 3000V
- Pcb mounting

QUICK REFERENCE DATA

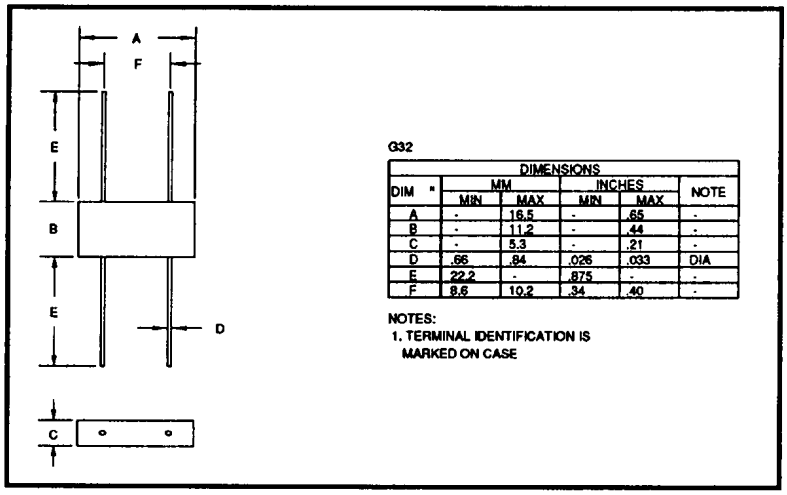
- V_R = 50V - 3000V
- I_F = 0.36 - 1.5A
- I_R = 2.0 µA
- t_{rr} = 2 - 2.5µS

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 * @ 250mA	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	µS
SBR05	50	1.5	1.0	10	2.0	50	1.1	↑
SBR1	100	1.5	1.0	10	2.0	50	1.1	
SBR2	200	1.5	1.0	10	2.0	50	1.1	
SBR4	400	1.5	1.0	10	2.0	50	1.1	2.0
SBR6	600	1.5	1.0	10	2.0	50	1.1	
SBR8	800	1.5	1.0	10	2.0	50	1.1	
SBR10	1000	1.5	1.0	10	2.0	50	1.1	↓
SBR15	1500	0.36	0.24	2.5	2.0	50	* 5.0	↑
SBR20	2000	0.36	0.24	2.5	2.0	50	* 5.0	2.5
SBR25	2500	0.36	0.24	2.5	2.0	50	* 5.0	
SBR30	3000	0.36	0.24	2.5	2.0	50	* 5.0	↓

[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

SBR10 and SBR30 are available in Europe to DEF STAN 59-61/90/213 release to F and FX levels.

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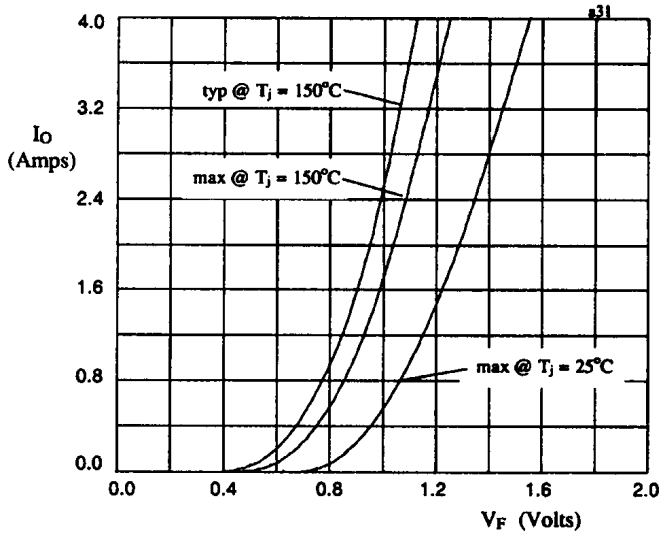

Fig 1. Forward voltage drop against output current per leg for SBR05 thru SBR10.

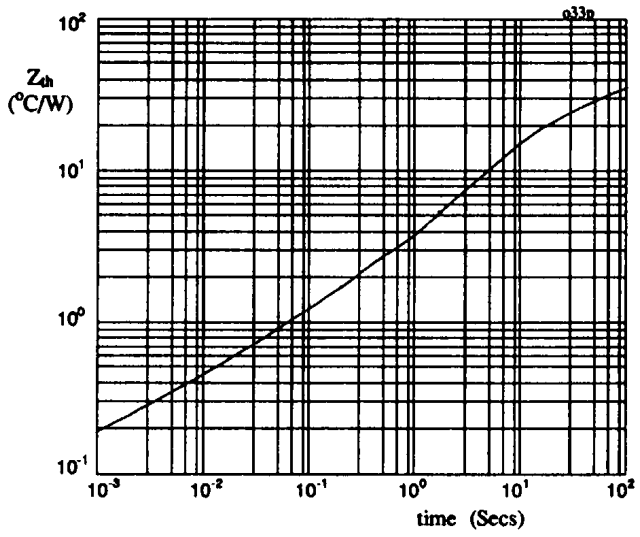

Fig 2. Transient thermal impedance characteristic per leg for SBR05 thru SBR10

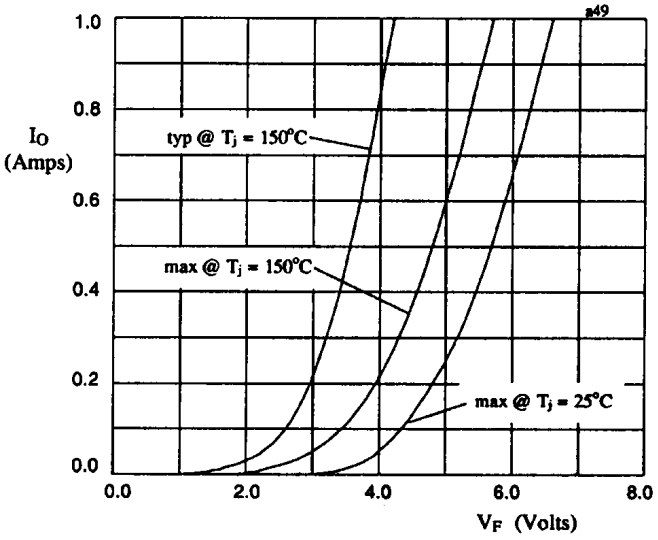

Fig 3. Forward voltage drop against output current per leg for SBR15 thru SBR30

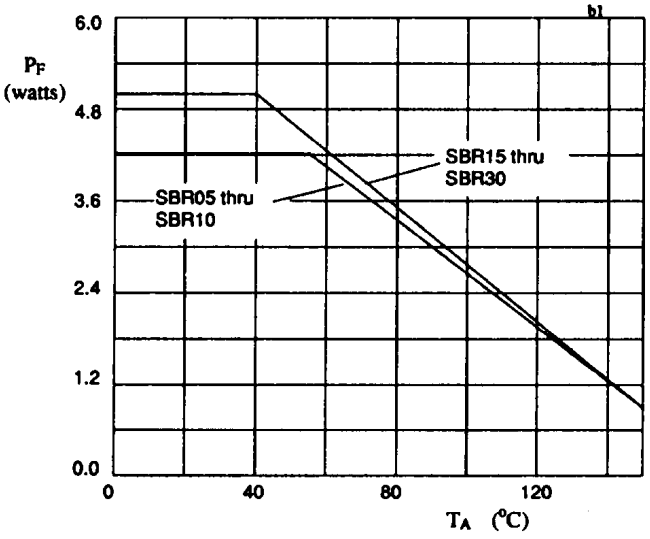

Fig 4. Power derating characteristics when p.c.b mounted