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
- VRWM up to 3000V
- Pcb mounting

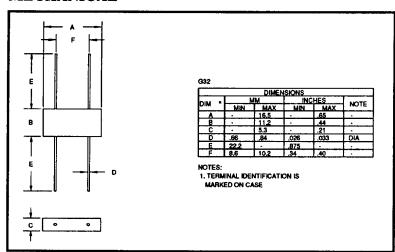
## QUICK REFERENCE DATA

- $V_R = 50V 3000V$
- $I_F = 0.36 1.5A$
- $I_R = 2.0 \, \mu A$
- $t_{rr} = 2 2.5 \mu S$

## **ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS**

Device Type	Working Reverse Voltage Vrwm	Average Rectified Current I <sub>F(AV)</sub>		I <sub>FRM</sub>	Cur I <sub>R</sub> @ `	Leakage rent VRWM	Forward Voltage drop / leg @ 25°C V <sub>F</sub> @ 1A	Reverse Recovery Time
	V KVVIVI	<b>@</b> 55°C	@ 100°C	<b>@</b> 25°C	@ 25°C	<b>@</b> 100°C	* @ 250mA	<b>@</b> 25°C
	Volts	Amps	Amps	Amps	μА	μА	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	1 🛉
SBR20	2000	0.36	0.24	2.5	2.0	50	<b>*</b> 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	+

## **MECHANICAL**



<sup>1</sup> Measured on discrete devices prior to assembly

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

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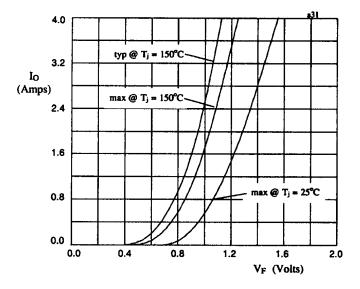


Fig 1. Forward voltage drop against output current per leg for SBR05 thru SBR10.

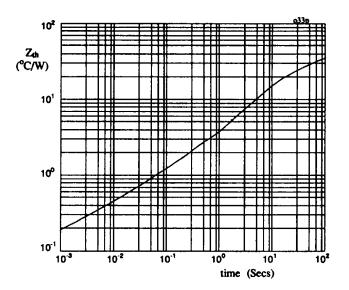


Fig 2. Transient thermal impedance characteristic per leg for SBR05 thru SBR10

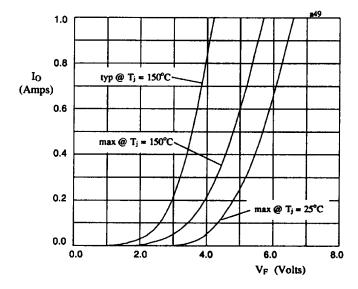


Fig 3. Forward voltage drop against output current per leg for SBR15 thru SBR30

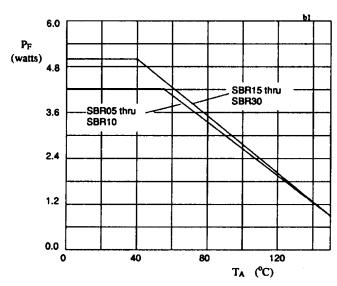


Fig 4. Power derating characteristics when p.c.b mounted