

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

### QUICK REFERENCE DATA

- Low forward voltage drop
- Low reverse leakage current
- Subminiature design
- Three lead configurations
- Pcb mounting

- $V_R = 200V - 1000V$
- $I_F = 1.5A$
- $I_R = 2.0 \mu A$
- $t_{rr} = 2.0 \mu S$

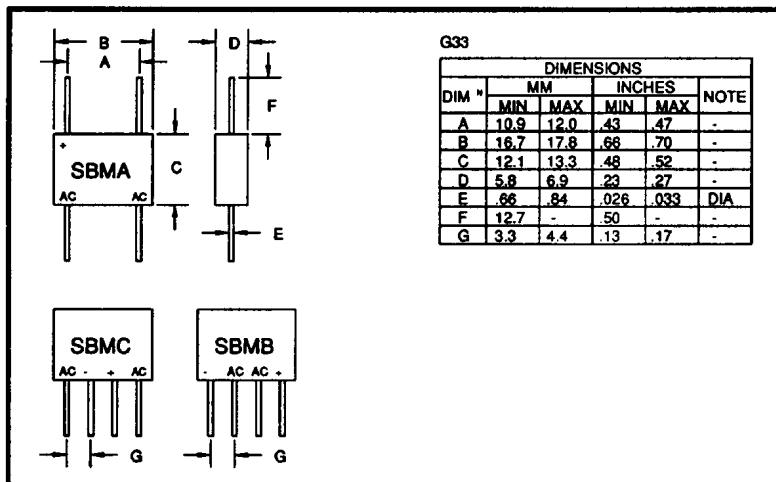
### ABSOLUTE MAXIMUM RATINGS & CHARACTERISTICS

| Device Type | Working Reverse Voltage<br>V <sub>RWM</sub> | Average Rectified Current<br>I <sub>F(AV)</sub> |         | 1 Cycle Surge Current<br>I <sub>FSM</sub><br>t <sub>p</sub> = 8.3mS | Repetitive Surge Current<br>I <sub>FRM</sub> | Reverse Leakage Current<br>I <sub>R</sub> @ V <sub>RWM</sub> |         | Forward Voltage drop<br>V <sub>F</sub> @ 1A/leg<br>@ 25°C | Reverse Recovery Time<br>t <sub>rr</sub> |
|-------------|---------------------------------------------|-------------------------------------------------|---------|---------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------|---------|-----------------------------------------------------------|------------------------------------------|
|             |                                             | @ 55°C                                          | @ 100°C | @ 25°C                                                              | @ 25°C                                       | @ 25°C                                                       | @ 100°C |                                                           | @ 25°C                                   |
|             | Volts                                       | Amps                                            | Amps    | Amps                                                                | Amps                                         | µA                                                           | µA      | Volts                                                     | µS                                       |
| SBM*2       | 200                                         | 1.5                                             | 1.0     | 50                                                                  | 10                                           | 2.0                                                          | 50      | 1.1                                                       | 2.0                                      |
| SBM*4       | 400                                         | 1.5                                             | 1.0     | 50                                                                  | 10                                           | 2.0                                                          | 50      | 1.1                                                       |                                          |
| SBM*6       | 600                                         | 1.5                                             | 1.0     | 50                                                                  | 10                                           | 2.0                                                          | 50      | 1.1                                                       |                                          |
| SBM*8       | 800                                         | 1.5                                             | 1.0     | 50                                                                  | 10                                           | 2.0                                                          | 50      | 1.1                                                       |                                          |
| SBM*0       | 1000                                        | 1.5                                             | 1.0     | 50                                                                  | 10                                           | 2.0                                                          | 50      | 1.1                                                       |                                          |

\* Add A, B, C for desired circuit configuration  
(see Mechanical outline)

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

### MECHANICAL



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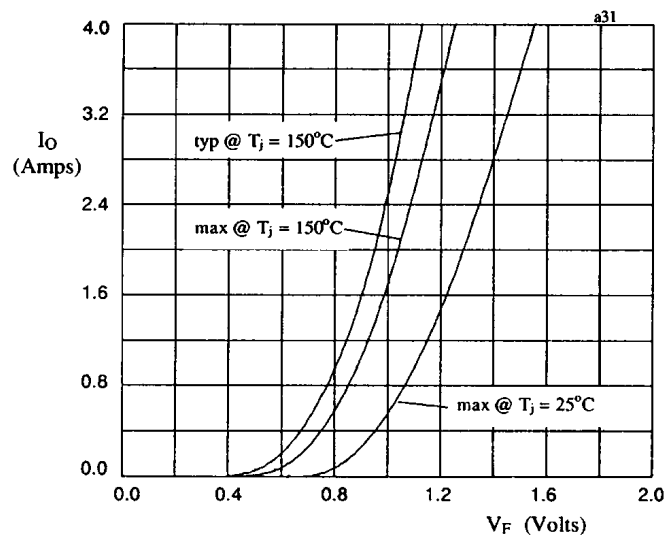


Fig 1. Forward voltage drop against output current per leg

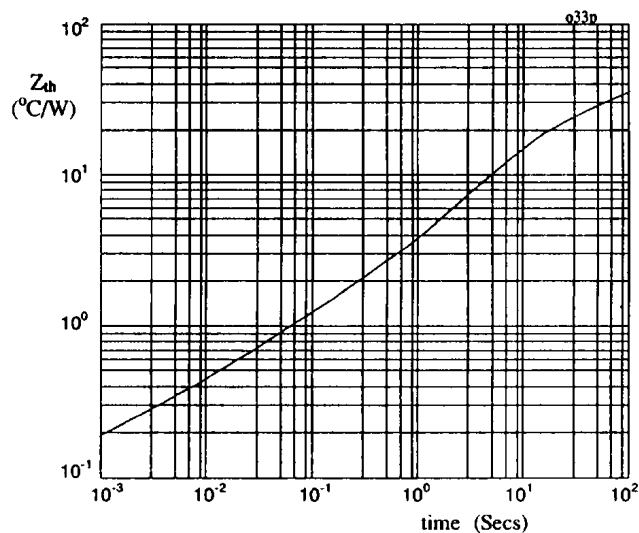


Fig 2. Transient thermal impedance characteristic per leg

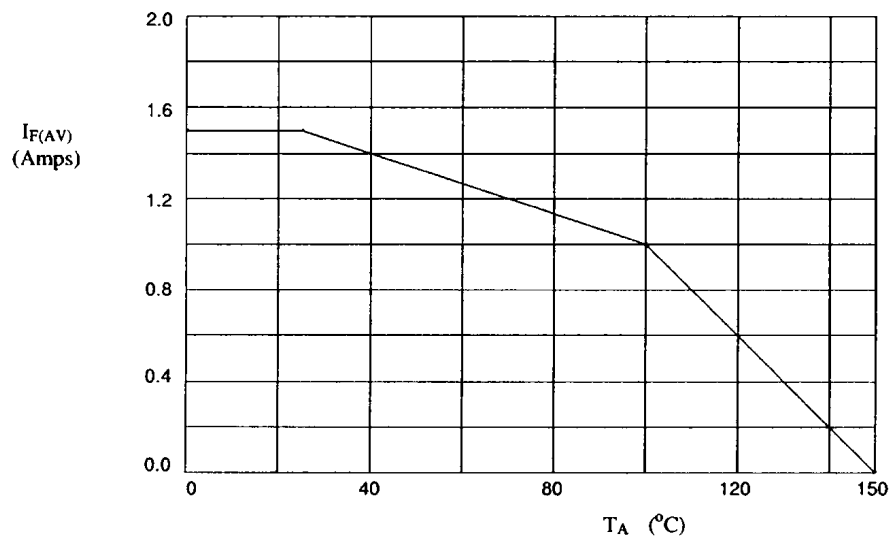


Fig 3. Maximum average forward current against ambient temperature.

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