



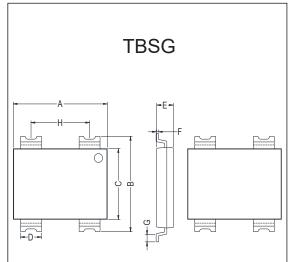
#### **Features**

- Halogen Free. "Green" Device (Note 1)
- · Glass Passivated Chip Junction
- Moisture Sensitivity Level 1
- Ideal for Automated Placement
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 6 Amp Bridge Rectifiers 1000 Volts

### Maximum Ratings @ 25°C (Unless Otherwise Specified)

| Parameter  | Symbol             | Value | Unit             |
|--|--------------------|-------|------------------|
| Peak Repetitive Reverse<br>Voltage                             | V <sub>RRM</sub>   |       |                  |
| Working Peak Reverse<br>Voltage                                | V <sub>RWM</sub>   | 1000  | V                |
| DC Blocking Voltage  | $V_R$              |       |                  |
| RMS Reverse Voltage  | V <sub>RMS</sub>   | 700   | ٧                |
| Average Rectified<br>Forward<br>Current ,T <sub>C</sub> =95°C  | I <sub>F(AV)</sub> | 6     | Α                |
| Non-Repetitive Peak<br>Surge Current @ 8.3ms<br>Half Sine Wave |                    | 150   | ^                |
| Non-Repetitive Peak<br>Surge Current @ 1ms<br>Square Wave      | I <sub>FSM</sub>   | 300   | Α                |
| I²t Rating for Fusing<br>@1ms≤t≤8.3ms                          | l <sup>2</sup> t   | 93    | A <sup>2</sup> s |



| DIMENSIONS |        |       |      |      |      |  |
|------------|--------|-------|------|------|------|--|
| DIM        | INCHES |       | MM   |      | NOTE |  |
| DIIVI      | MIN    | MAX   | MIN  | MAX  | NOTE |  |
| Α          | 0.339  | 0.362 | 8.60 | 9.20 |      |  |
| В          | 0.327  | 0.350 | 8.30 | 8.90 |      |  |
| С          | 0.244  | 0.260 | 6.20 | 6.60 |      |  |
| D          | 0.073  | 0.085 | 1.85 | 2.15 |      |  |
| E          | 0.053  | 0.069 | 1.35 | 1.75 |      |  |
| F          | 0.004  | 0.012 | 0.10 | 0.30 |      |  |
| G          | 0.016  | 0.031 | 0.40 | 0.80 |      |  |
| Н          | 0.213  | 0.228 | 5.40 | 5.80 |      |  |

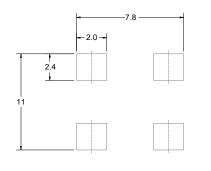
#### **Internal Structure**

| Simplified Outline     | Graphic Symbol |
|------------------------|----------------|
| - +0<br>MCC<br>TBSA60M |                |

#### Note:

- 1.Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 2. High temperature solder exemption applied, see EU directive annex 7a.

#### Suggested Pad Layout(mm)





## Thermal characteristics

| Symbol               | Parameter                                   | Conditions | Min | Тур | Max | Unit |
|----------------------|---|------------|-----|-----|-----|------|
| T <sub>J</sub>       | Operating Junction Temperature Range        |            | -55 |     | 150 | °C   |
| T <sub>stg</sub>     | Storage Temperature Range                   |            | -55 |     | 150 | °C   |
| Rth <sub>(J-C)</sub> | Thermal Resistance from Junction to Case    | Note 1     |     | 6   |     | °C/W |
| Rth <sub>(J-L)</sub> | Thermal Resistance from Junction to Lead    | Note 1     |     | 10  |     | °C/W |
| Rth <sub>(J-A)</sub> | Thermal Resistance from Junction to Ambient | Note 1     |     | 55  |     | °C/W |

#### Note:

# **Electrical Characteristics @ 25°C Unless Otherwise Specified**

| Parameter            | Symbol         | Test Conditions                                    | Min | Тур | Max      | Unit |
|----------------------|----------------|--|-----|-----|----------|------|
| Forward Voltage      | V <sub>F</sub> | I <sub>F</sub> =3A;T <sub>J</sub> =25°C            |     |     | 1.0      | V    |
| Reverse Current      | I <sub>R</sub> | at Rated $V_R;T_J$ =25°C at Rated $V_R;T_J$ =125°C |     |     | 5<br>100 | μA   |
| Junction Capacitance | Сл             | V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C     |     | 50  |          | pF   |

<sup>1.</sup>Device mounted on P.C.B with 35mm\*25mm\*1.7mm.



#### **Curve Characteristics**

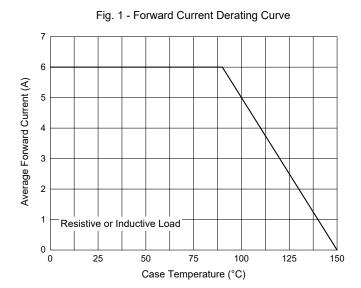


Fig. 3 - Typical Forward Characteristics

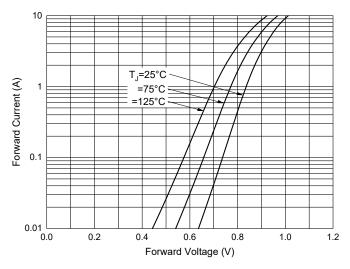


Fig. 5 - Typical Capacitance Characteristics

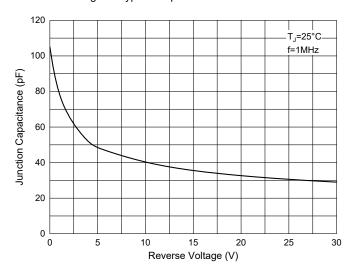


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

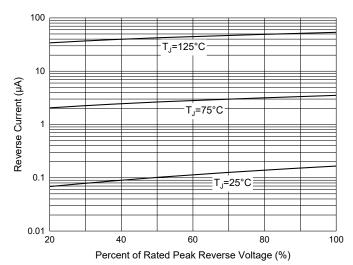
(V) 150

8.3 ms Single Half Sine-Wave

1 10 100

Fig. 4 - Typical Reverse Leakage Characteristics

Number of Cycles at 60 Hz





#### **Ordering Information**

| Device         | Packing                |  |  |
|----------------|------------------------|--|--|
| Part Number-TP | Tape&Reel:2.5Kpcs/Reel |  |  |

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