

## Features

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

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

|                            |                 |       |
|----------------------------|-----------------|-------|
| Peak Pulse Current(8/20μs) | I <sub>PP</sub> | 2500A |
|----------------------------|-----------------|-------|

Note:

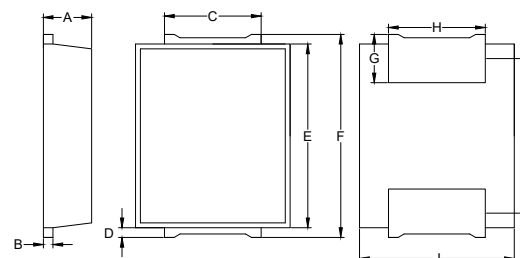
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Pin Configuration



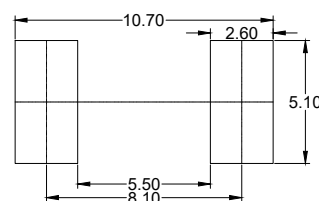
# Surface Mount Transient Voltage Suppressor

## SMG



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.096  | 0.100 | 2.45  | 2.55  |      |
| B          | 0.018  | 0.022 | 0.45  | 0.55  |      |
| C          | 0.193  | 0.201 | 4.90  | 5.10  |      |
| D          | 0.016  | 0.024 | 0.40  | 0.60  |      |
| E          | 0.370  | 0.378 | 9.40  | 9.60  |      |
| F          | 0.406  | 0.421 | 10.30 | 10.70 |      |
| G          | 0.094  | 0.102 | 2.40  | 2.60  |      |
| H          | 0.193  | 0.201 | 4.90  | 5.10  |      |
| J          | 0.311  | 0.319 | 7.90  | 8.10  |      |
| I          | 0.311  | 0.319 | 7.90  | 8.10  |      |

## Suggested Solder Pad Layout



## Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Part Number | Breakdown Voltage $V_{BR}(V)$ |      | Test Current | Maximum Reverse Leakage @ $V_{RWM}$ | Working Peak Reverse Voltage | Typical Capacitance 0V Bias 10kHz | Maximum Clamping Voltage (8/20 $\mu$ s) @ IPP | Peak Pulse Current (8/20 $\mu$ s) | Marking Code |
|-------------|-------------------------------|------|--------------|-------------------------------------|------------------------------|-----------------------------------|-----------------------------------------------|-----------------------------------|--------------|
|             | Min.                          | Max. | $I_T(mA)$    | $I_R(\mu A)$                        | $V_{RWM}(V)$                 | C(nF)                             | $V_C(V)$                                      | $I_{PP}(A)$                       |              |
| SMGJ80CA    | 90                            | 110  | 1            | 5                                   | 80                           | 1.5                               | 130                                           | 2500                              | 80CA         |

## Curve Characteristics

Fig. 1 - Pulse Derating Curve

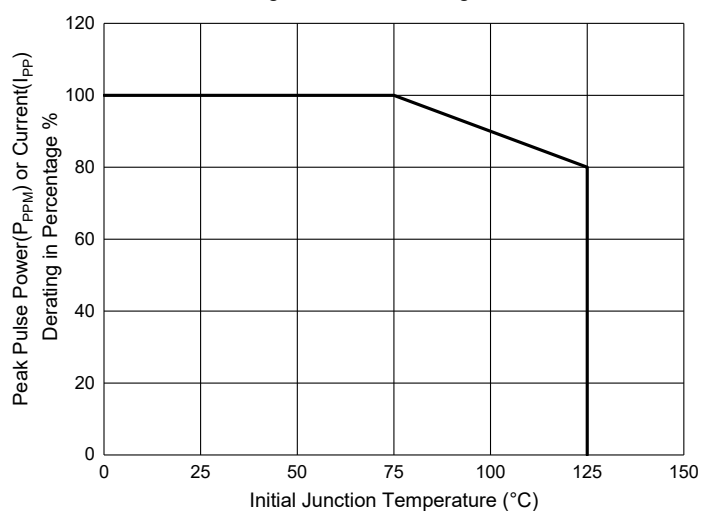


Fig. 2 - 8 X 20 $\mu$ s Pulse Waveform

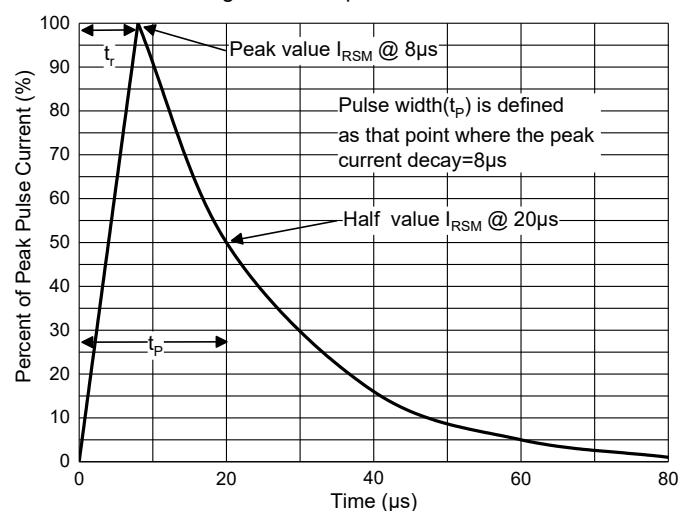
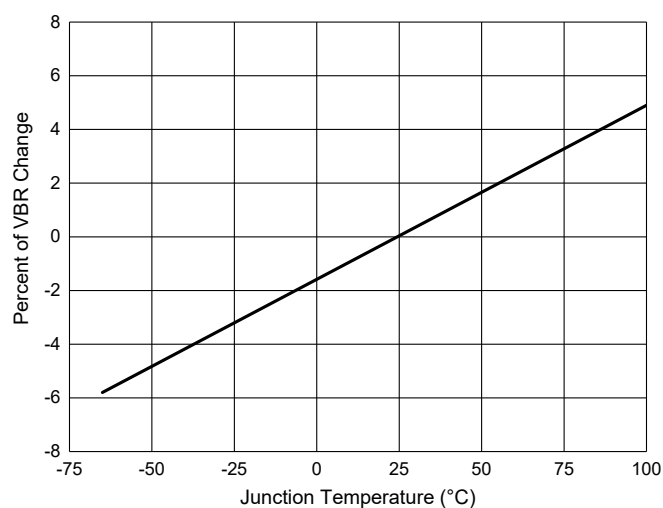


Fig. 3 - Typical VBR vs. Junction Temperature



## Ordering Information

| Device         | Packing                 |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 1500pcs/Reel |

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