

## **Features**

- · Ideal for Automated Placement
- · High Surge Current Capability
- · Bi-directional TVS
- · Glass Passivated Junction
- · Low Clamping Voltage Under Surge
- Vacuum Soldering Process Minimize the Solder Voids
- · 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) | l <sub>PP</sub> | 10000A |
|----------------------------|-----------------|--------|
|----------------------------|-----------------|--------|

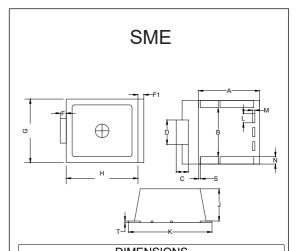
### Note:

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

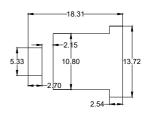


# Surface Mount Transient Voltage Suppressor



| DIMENSIONS |       |        |        |       |      |  |
|------------|-------|--------|--------|-------|------|--|
| DIM INCH   |       | HES MI |        | М     | NOTE |  |
| DIIVI      | MIN   | MAX    | MIN MA |       | NOIL |  |
| Α          | 0.518 | 0.542  | 13.16  | 13.76 |      |  |
| В          | 0.415 | 0.435  | 10.55  | 11.05 |      |  |
| С          | 0.098 | 0.114  | 2.50   | 2.90  |      |  |
| D          | 0.203 | 0.222  | 5.15   | 5.65  |      |  |
| F          | 0.047 | 0.055  | 1.20   | 1.40  |      |  |
| F1         | 0.047 | 0.055  | 1.20   | 1.40  |      |  |
| G          | 0.530 | 0.575  | 13.45  | 14.60 |      |  |
| Н          | 0.610 | 0.632  | 15.50  | 16.05 |      |  |
| J          | 0.273 | 0.285  | 6.94   | 7.24  |      |  |
| K          | 0.713 | 0.728  | 18.10  | 18.50 |      |  |
| L          | 0.075 | 0.083  | 1.90   | 2.10  |      |  |
| M          | 0.016 | 0.024  | 0.40   | 0.60  |      |  |
| N          | 0.055 | 0.063  | 1.40   | 1.60  |      |  |
| T          | 0.013 | 0.017  | 0.33   | 0.43  |      |  |
| S          | 0.014 | 0.018  | 0.35   | 0.45  |      |  |

# **Suggested Solder Pad Layout**





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

| Part Number | Breakdown<br>V <sub>BR</sub> (\ | _    | Test<br>Current     | Maximum<br>Reverse<br>Leakage<br>@V <sub>RWM</sub> | Working<br>Peak<br>Reverse<br>Voltage | Typical.<br>Capacitance<br>0V Bias<br>10kHz | Maximum<br>Clamping<br>Voltage<br>(8/20µs)<br>@ I <sub>PP</sub> | Peak<br>Pulse<br>Current<br>(8/20µs) | Marking<br>Code |
|-------------|---------------------------------|------|---------------------|--|---------------------------------------|---|---|--------------------------------------|-----------------|
|             | Min.                            | Max. | I <sub>T</sub> (mA) | I <sub>R</sub> (μA)                                | V <sub>RWM</sub> (V)                  | C(nF)                                       | V <sub>C</sub> (V)  | I <sub>PP</sub> (A)                  |                 |
| SMEJ58CA    | 64                              | 70   | 10                  | 5  | 58                                    | 6.5   | 110   | 10000                                | 58CA            |
| SMEJ66CA    | 72                              | 80   | 10                  | 5  | 66                                    | 6.5   | 120   | 10000                                | 66CA            |
| SMEJ76CA    | 85                              | 95   | 10                  | 5  | 76                                    | 6.5   | 135   | 10000                                | 76CA            |
| SMEJ86CA    | 96                              | 107  | 10                  | 5  | 86                                    | 6.0   | 157   | 10000                                | 86CA            |

# **Curve Characteristics**

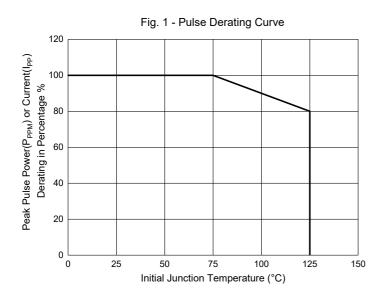
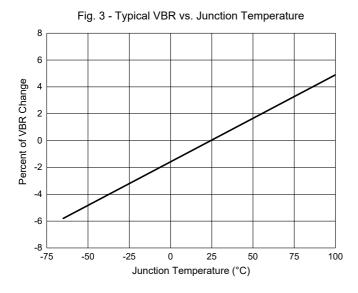


Fig. 2 - 8 X 20µs Pulse Waveform 100 Peak value I<sub>RSM</sub> @ 8µs<sup>-</sup> 90 Percent of Peak Pulse Current (%) Pulse width(t<sub>P</sub>) is defined 80 as that point where the peak 70 current decay=8µs 60 -Half value l<sub>RSM</sub> @ 20µs-50 40 30 20 10 0 40 60 0 20 80 Time (µs)





# **Ordering Information**

| Device         | Packing                |  |  |
|----------------|------------------------|--|--|
| Part Number-TP | Tape&Reel: 400pcs/Reel |  |  |

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