

AI

E480232

Features

- · AEC-Q101 Qualified
- Meet ISO7637-2 5a Surge Specification
- Low Leakage
- · Glass Passivated Junction
- · Polarity: Heatsink is Anode
- · Excellent Clamping Capability
- Uni-directional Polarity
- · Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

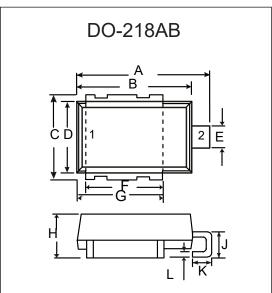
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

| Peak Pulse Power Surge Current with a 10/1000µs Waveform | I _{PPM} | See the Table | Note 2 |
|--|------------------|---------------|----------------------|
| Peak Pulse Power Dissipation with a 10/1000µs Waveform | P _{PPM} | 4600W | Note 2 |
| Peak Pulse Power Dissipation with a 10/10000µs Waveform | P _{PPM} | 3600W | |
| Power Dissipation On Infinite Heatsink | P_{D} | 5.0W | T _L =25°C |
| Peak forward surge current | I _{FSM} | 600A | |

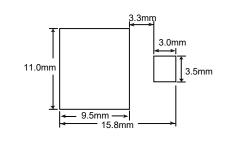
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a. 2. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25\,^{\circ}\text{C}$ per Fig.4

4600 Watt TVS 10 to 43 Volts



| DIMENSIONS | | | | | |
|------------|--------|-------|-------|-------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | NOIL |
| Α | 0.590 | 0.630 | 15.00 | 16.00 | |
| В | 0.524 | 0.539 | 13.30 | 13.70 | |
| С | 0.374 | 0.413 | 9.50 | 10.50 | |
| D | 0.323 | 0.339 | 8.20 | 8.60 | |
| Е | 0.091 | 0.114 | 2.30 | 2.90 | |
| F | 0.343 | 0.366 | 8.70 | 9.30 | |
| G | 0.382 | 0.406 | 9.70 | 10.30 | |
| Н | 0.189 | 0.205 | 4.80 | 5.20 | |
| J | 0.098 | 0.138 | 2.50 | 3.50 | |
| K | 0.067 | 0.106 | 1.70 | 2.70 | |
| L | 0.020 | 0.028 | 0.50 | 0.70 | |

SUGGESTED SOLDER PAD LAYOUT





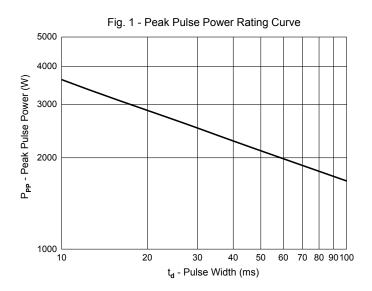
Electrical Characteristics @ 25°C Unless Otherwise Specified

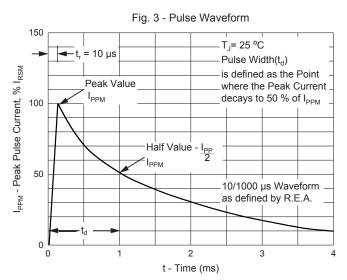
| MCC Part Number | Breakdo | own Voltage | V _{BR} @I _T | Maximum Reverse Leakage I _R | Maximum IR@VRWM T _J =175 | Working Peak Reverse Voltage | Maximum Reverse Surge Current IPP | Maximum Clamping Voltage |
|--------------------|---------|-------------|---------------------------------|--|---|---------------------------------|---|--|
| (Uni) | Min (V) | Max (V) | I_T (mA) | @V _{RWM} (μA) | (µA) | V _{RWM} (V) | (A) ⁽¹⁾ | Voltage V _C @I _{PP} (V) |
| SM6S10A | 11.1 | 12.3 | 5.0 | 15 | 250 | 10 | 271 | 17.0 |
| SM6S11A | 12.2 | 13.5 | 5.0 | 10 | 150 | 11 | 253 | 18.2 |
| SM6S12A | 13.3 | 14.7 | 5.0 | 10 | 150 | 12 | 231 | 19.9 |
| SM6S13A | 14.4 | 15.9 | 5.0 | 10 | 150 | 13 | 214 | 21.5 |
| SM6S14A | 15.6 | 17.2 | 5.0 | 10 | 150 | 14 | 198 | 23.2 |
| SM6S15A | 16.7 | 18.5 | 5.0 | 10 | 150 | 15 | 189 | 24.4 |
| SM6S16A | 17.8 | 19.7 | 5.0 | 10 | 150 | 16 | 177 | 26.0 |
| SM6S17A | 18.9 | 20.9 | 5.0 | 10 | 150 | 17 | 167 | 27.6 |
| SM6S18A | 20.0 | 22.1 | 5.0 | 10 | 150 | 18 | 158 | 29.2 |
| SM6S20A | 22.2 | 24.5 | 5.0 | 10 | 150 | 20 | 142 | 32.4 |
| SM6S22A | 24.4 | 26.9 | 5.0 | 10 | 150 | 22 | 130 | 35.5 |
| SM6S24A | 26.7 | 29.5 | 5.0 | 10 | 150 | 24 | 118 | 38.9 |
| SM6S26A | 28.9 | 31.9 | 5.0 | 10 | 150 | 26 | 109 | 42.1 |
| SM6S28A | 31.1 | 34.4 | 5.0 | 10 | 150 | 28 | 101 | 45.4 |
| SM6S30A | 33.3 | 36.8 | 5.0 | 10 | 150 | 30 | 95 | 48.4 |
| SM6S33A | 36.7 | 40.6 | 5.0 | 10 | 150 | 33 | 86 | 53.3 |
| SM6S36A | 40.0 | 44.2 | 5.0 | 10 | 150 | 36 | 79 | 58.1 |
| SM6S40A | 44.4 | 49.1 | 5.0 | 10 | 150 | 40 | 71 | 64.5 |
| SM6S43A | 47.8 | 52.8 | 5.0 | 10 | 150 | 43 | 66 | 69.4 |

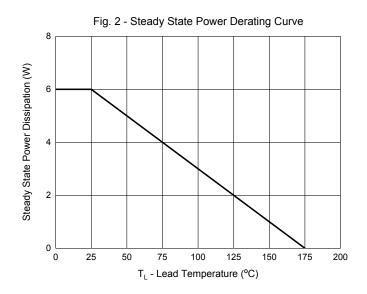
Note: 1.Surge current waveform is defined at 10/1000us waveform
2.For all types maximum V_F = 1.9V at I_F = 100A measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

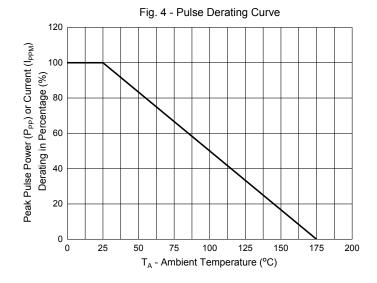


Curve Characteristics











Ordering Information

| Device | Packing | |
|----------------|-----------------------|--|
| Part Number-TP | Tape&Reel:750pcs/Reel | |

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