



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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SM5S14A THRU SM5S36A

Features

- Low Leakage
- Glass passivated junction
- Excellent clamping capability
- Uni-directional polarity
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"
- Polarity: Heatsink is anode
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Meet ISO7637-2 5a surge specification
- Meet AEC-Q101 requirement

Maximum Rating:

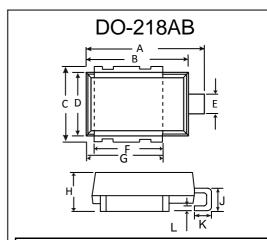
Operating Temperature: -55°C to +175°C
 Storage Temperature: -55°C to +175°C

| Peak Pulse Current with a 10/1000us waveform | I _{PPM} | See Table 1 | Note 2 |
|--|------------------|-------------|--------|
| Peak Power Dissipation with a 10/1000us waveform | P _{PPM} | 3600W | Note 2 |
| Peak Power Dissipation with a 10/10000us waveform | P _{PPM} | 2800W | Note 2 |
| Peak Forward Surge Current | I _{FSM} | 500A | Note:3 |
| Power Dissipation On Infinite Heatsink At T∟=25°C | P_D | 5.0W | |

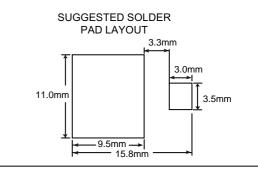
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

- 2. Non-repetitive current pulse, per Fig.2 and derated above T_A=25°C per Fig.1
- 3. Peak forward surge current 8.3 ms single half sine

3600 Watt Transient Voltage Suppressors 14 to 36 Volts



| DIMENSIONS | | | | | |
|------------|--------|-------|-------|-------|------|
| | INCHES | | ММ | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| 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 | |
| Ĺ | 0.020 | 0.028 | 0.50 | 0.70 | |





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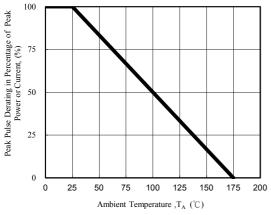
Electrical Characteristics(T_A=25 °C unless otherwise noted)

| Part Number | Breakdown Voltage V _{BR} @I _T | | Maximum Reverse Leakage I _R @V _{RWM} (uA) | Maximum I _R @V _{RWM} T _J =175 | Working Peak Reverse Voltage V _{RWM} | Maximum Reverse Surge Current I _{PP} | Maximum Clamping Voltage V _C @I _{PP} (V) | |
|-------------|---|---------|--|--|---|--|--|----------------|
| | Min (V) | Max (V) | I_T (mA) | a v RWM (u.A.) | (uA) | (V) | $(\mathbf{A})^{(1)}$ | A Complete (A) |
| SM5S14A | 15.60 | 17.20 | 5 | 10 | 150 | 14 | 155.0 | 23.2 |
| SM5S15A | 16.70 | 18.50 | 5 | 10 | 150 | 15 | 148.0 | 24.4 |
| SM5S16A | 17.80 | 19.70 | 5 | 10 | 150 | 16 | 138.0 | 26.0 |
| SM5S17A | 18.90 | 20.90 | 5 | 10 | 150 | 17 | 130.0 | 27.6 |
| SM5S18A | 20.00 | 22.10 | 5 | 10 | 150 | 18 | 123.0 | 29.2 |
| SM5S20A | 22.20 | 24.50 | 5 | 10 | 150 | 20 | 111.0 | 32.4 |
| SM5S22A | 24.40 | 26.90 | 5 | 10 | 150 | 22 | 101.0 | 35.5 |
| SM5S24A | 26.70 | 29.50 | 5 | 10 | 150 | 24 | 93.0 | 38.9 |
| SM5S26A | 28.90 | 31.90 | 5 | 10 | 150 | 26 | 86.0 | 42.1 |
| SM5S28A | 31.10 | 34.40 | 5 | 10 | 150 | 28 | 79.0 | 45.4 |
| SM5S30A | 33.30 | 36.80 | 5 | 10 | 150 | 30 | 74.0 | 48.4 |
| SM5S33A | 36.70 | 40.60 | 5 | 10 | 150 | 33 | 68.0 | 53.3 |
| SM5S36A | 40.00 | 44.20 | 5 | 10 | 150 | 36 | 62.0 | 58.1 |

NOTE 1: Surge current waveform is defined at 10/1000uS waveform

Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

100



point where the peak current decays to 50 % of Ipp Peak Pulse Current, (%) 50 10/1000 μsec. Waveform **←** td → 0 3

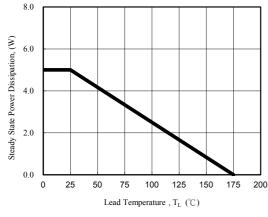
Peak Value

(Ipp)

Fig. 1 - Pulse Derating Curve

Fig. 2 - Pulse Waveform

Pulse Width (td) is defined as the



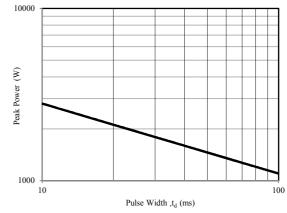


Fig. 3 - Steady State Power Derating Curve

Fig. 4 - Peak Pulse Power Rating Curve



Ordering Information:

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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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