

LOW CAPACITANCE TRANSZORB
Transient Voltage Suppressors

FEATURES

- * Plastic package has underwriters laboratory
- * Glass passivated chip construction
- * 500 watts peak pulse power capability with a 10/1000us waveform, repetition rate (duty cycle):0.01%
- * Excellent clamping capability
- * Low incremental surge resistance
- * Very fast response time
- * Ideal for data line applications
- * High temperature soldering guaranteed:
265 °C /10 seconds, 0.375"(9.5mm) lead length,
5lbs.(2.3kg) tension

MECHANICAL DATA

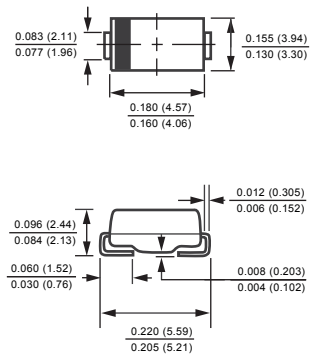
- * Case: JEDEC DO-204AC molded plastic body over passivated junction
- * Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026
- * Polarity: Color band denotes TVS cathode
- * Mounting position: Any
- * Weight: 0.098 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

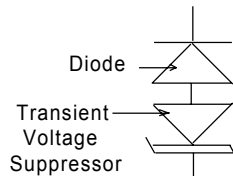
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



DO-214AA



Schematic



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | BSAC5.0 | UNITS |
|--|--------------------|--------------|-------|
| Peak Pulse Power Dissipation With a 10/1000uS Waveform (Note 1) | P _{PPM} | Min. 500 | Watts |
| Steady State Power Dissipation at T _L =75°C Lead Lengths .375" (9.5mm) (Note 2) | P _{M(AV)} | 5.0 | Watts |
| Peak Pulse Forward Surge Current With a 10/1000uS Waveform (Fig.3) | I _{FSM} | 100 | Amps |
| Operating Temperature Range | T _J | 150 | °C |
| Storage Temperature Range | T _{STG} | -55 to + 150 | °C |

NOTES : 1. Non-repetitive current pulse, per Fig.3 and derated above T_A =25°C per Fig.2
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTIC CURVES (BSAC5.0)

Fig. 1 – Peak Pulse Power Rating Curve

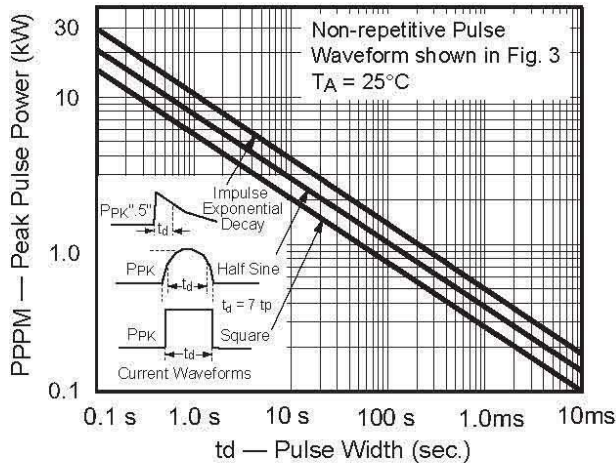


Fig. 2 - Power Derating Curve

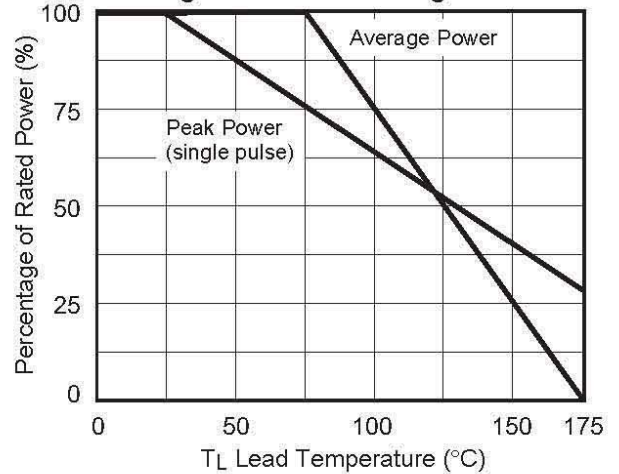


Fig. 3 – Pulse Waveform

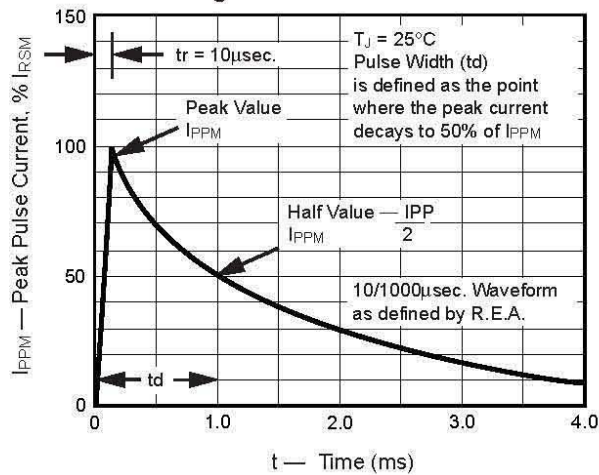
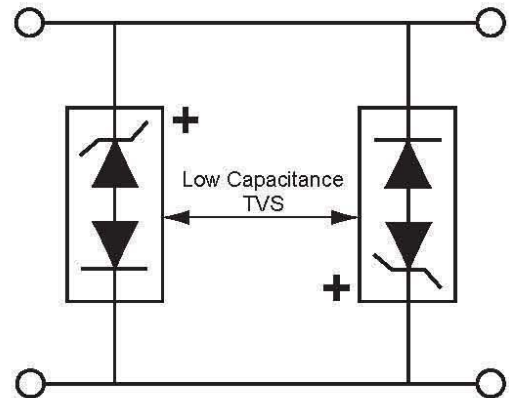


Fig. 4 - AC Line Protection Application



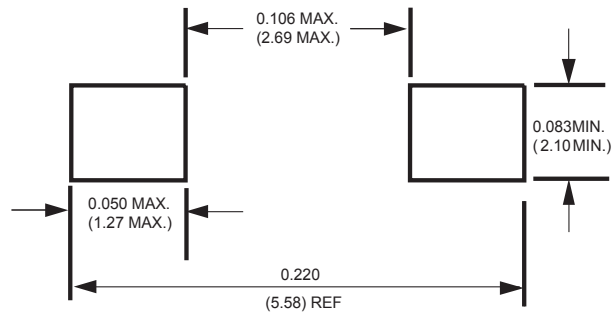
Application Note: Device must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection.

ELECTRICAL CHARACTERISTICS

| Rectron House No. | Reverse Stand off Voltage VWM * (Volts) | Minimum Breakdown voltage at $I_T=1.0\text{mA}$ $V_{(BR)}$ (V) | Maximum Reverse Leakage at VWM ID (μA) | Maximum Clamping Voltage at $I_{PPM}=5.0\mu\text{A}$ VC (Volts) | Maximum Peak Pulse Current IPPM (Amps) | Maximum Junction Capacitance at 0 Volts (PF) | Working Inverse Blocking Voltage V_{WB} (V) | Inverse Blocking Leakage Current V_{WB} $I_{IB}(\text{mA})$ | Peak Inverse Blocking Voltage V_{PIB} (V) |
|-------------------|---|--|---|---|--|--|---|---|---|
| BSAC5.0 | 5.0 | 7.60 | 300 | 10.0 | 44 | 50 | 75 | 1.0 | 100 |

* Non -repetitive current pulse,per Fig.3 and derated above $T_A=25$ degree per Fig.2

Mounting Pad Layout



Dimensions in inches and (millimeters)

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