

**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**

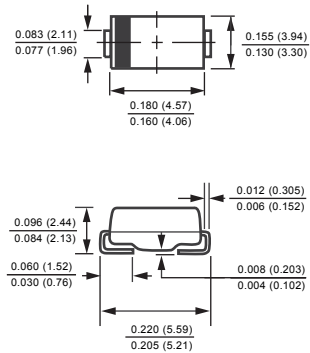
- \* Case: JEDEC DO-204AC molded plastic body over passivated junction
- \* Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026
- \* Polarity: Color band denotes TVS cathode
- \* Mounting position: Any
- \* Weight: 0.098 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

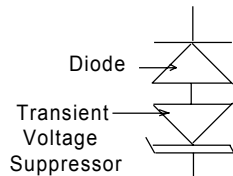
Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**DO-214AA**



**Schematic**



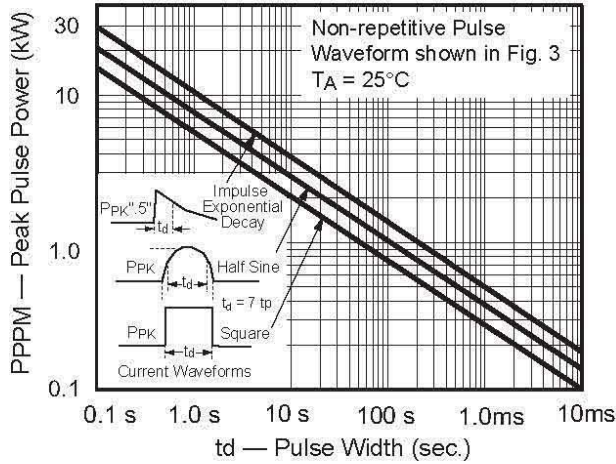
**MAXIMUM RATINGS AND THERMAL CHARACTERISTICS** (@ TA=25 °C unless otherwise noted)

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

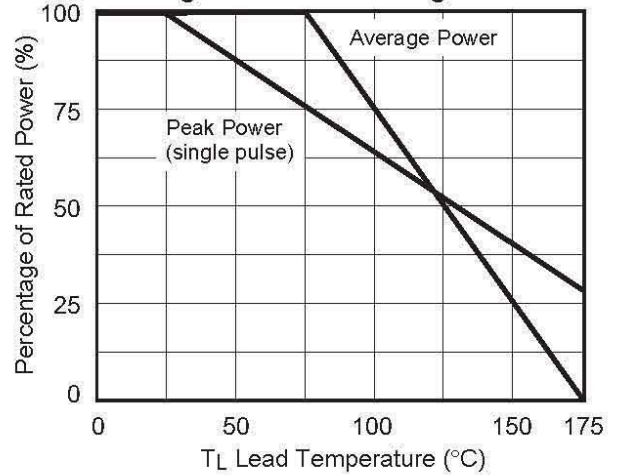
NOTES : 1. Non-repetitive current pulse, per Fig.3 and derated above T<sub>A</sub> =25°C per Fig.2  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTIC CURVES ( BSAC5.0 )

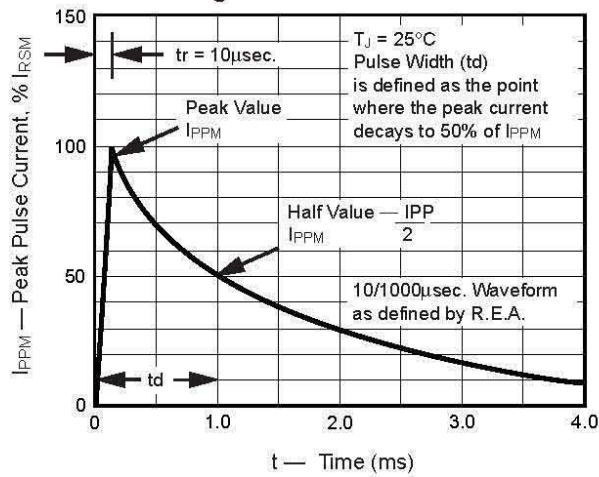
**Fig. 1 – Peak Pulse Power Rating Curve**



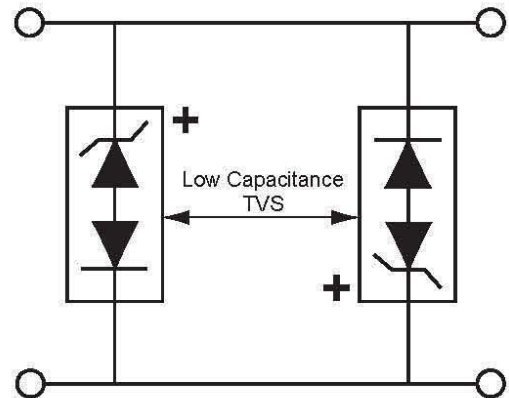
**Fig. 2 - Power Derating Curve**



**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 $I_T=1.0mA$ V(BR) (V)	Maximum Reverse Leakage at VWM ID (uA)	Maximum Clamping Voltage at IPPM=5.0A VC (Volts)	Maximum Peak Pulse Current IPPM (Amps)	Maximum Junction Capacitance at 0 Volts (PF)	Working Inverse Blocking Voltage VWB (V)	Inverse Blocking Leakage Current VWB IIB(mA)	Peak Inverse Blocking Voltage VPIB (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 TA=25 degree per Fig.2

## Mounting Pad Layout



Dimensions in inches and (millimeters)

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