

## Suppression

Order code	Manufacturer code	Description
26-3620	n/a	5V TRANSZORB SA5.OA
26-3625	n/a	12V TRANSZORB SA12A
26-3630	n/a	15V TRANSZORB SA15A
26-3635	n/a	24V TRANSZORB SA24A

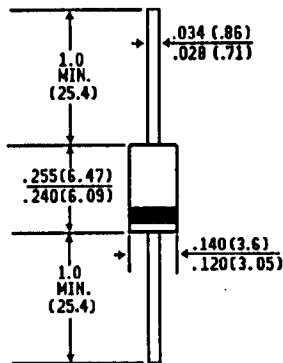
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The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

# GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE- 5.0 to 170 Volts  
500 Watt Peak Power 3.0 Watt Steady State

## FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- ◆ Glass passivated chip junction
- ◆ 500W surge capability at 1 ms
- ◆ Excellent clamping capability
- ◆ Low zener impedance
- ◆ Fast response time: typically less than 1.0 ps from 0 volts to BV min.
- ◆ Typical  $I_R$  less than 1  $\mu$  A above 10V
- ◆ High temperature soldering guaranteed: 300°C/10 seconds/.375", (9.5mm) lead length/5lbs., (2.3 kg) tension



Dimensions in inches  
and  
(millimeters)

## MECHANICAL DATA

**Case:** Molded plastic over glass passivated chip junction

**Terminals:** Axial leads, solderable per MIL-STD-202, Method 208

**Polarity:** Color band denoted cathode except Bipolar

**Mounting Position:** Any

**Weight:** 0.015 ounce, .4 gram

## MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

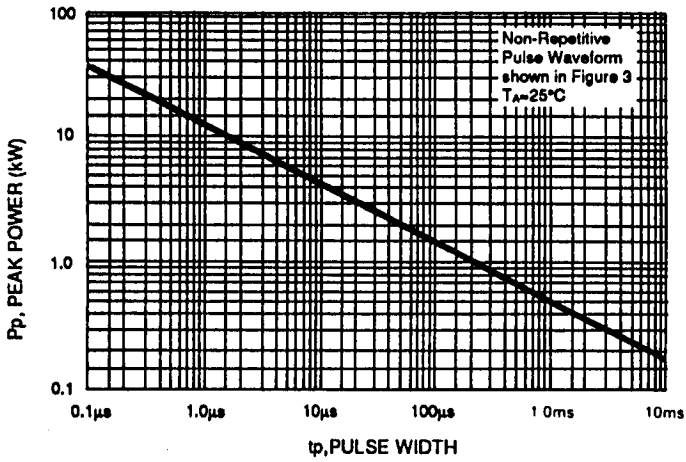
RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^\circ\text{C}$ , $T_p=1\text{ms}$ (NOTE 1)	Ppk	Minimum 500	Watts
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ Lead Lengths .375", (9.5mm) (NOTE 2)	PD	3.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (NOTE 3)	$I_{FSM}$	70	Amps
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175	°C

### NOTES:

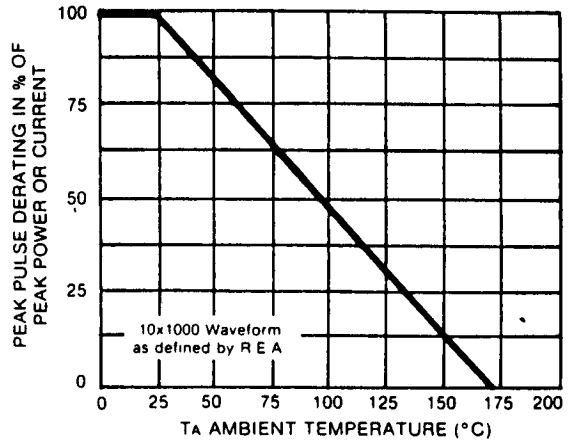
1. Non-repetitive current pulse, per Fig. 3 and derated above  $T_A=25^\circ\text{C}$  per Fig. 2.
2. Mounted on Copper Leaf area of 1.57 in<sup>2</sup> (40mm<sup>2</sup>).
3. 8.3ms single half sine-wave, Duty Cycle = 4 pulses per minute maximum.

# RATINGS AND CHARACTERISTIC CURVES SA SERIES

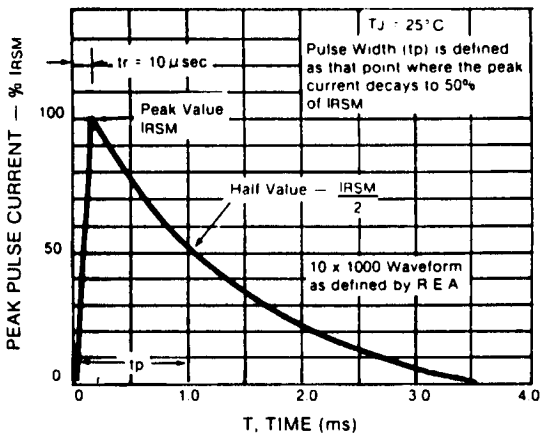
**FIGURE 1 - PULSE RATING CURVE**



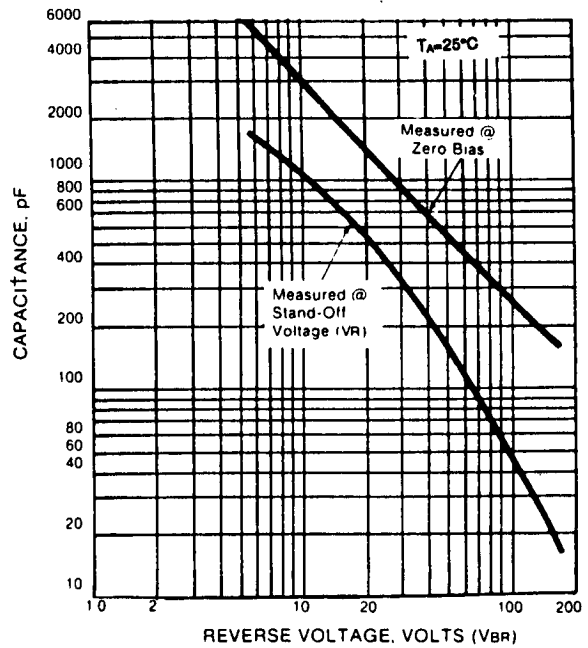
**FIGURE 2 - PULSE DERATING CURVE**



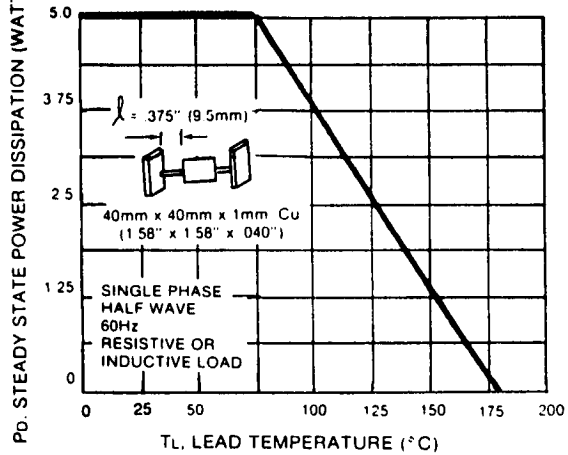
**FIGURE 3 - PULSE WAVEFORM**



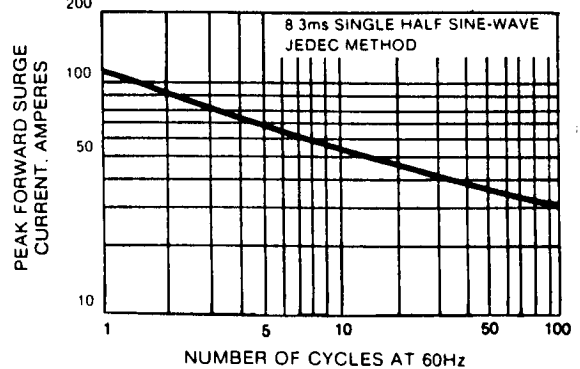
**FIGURE 4 - TYPICAL JUNCTION CAPACITANCE**



**FIGURE 5 - STEADY STATE POWER DERATING**



**FIGURE 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)**

DEVICE	BREAKDOWN VOLTAGE $V_{BR}$ Volts (NOTE 1)		@ $I_T$ (mA)	WORKING PEAK REVERSE VOLTAGE $V_{RPM}$ (VOLTS)	MAX. REVERSE LEAKAGE at $V_{RPM}$ $I_R$ (A)	MAX. REVERSE CURRENT $I_{RSM}$ (NOTE 2) (Amps)	MAX. REVERSE VOLTAGE (CLAMPING VOLT.) $V_{RSM}$ (VOLTS)	MAX. TEMP. VOLTAGE VARIATION $V_{PT}$ mV/°C
	MIN.	MAX.						
SA5.0A	6.40	7.00	10	5.0	600	54.3	9.20	5.0
SA12A	13.3	14.7	1.0	12.0	1.0	25.1	19.9	12.0
SA15A	16.7	18.5	1.0	15.0	1.0	20.6	24.4	16.0
SA24A	26.7	29.5	1.0	24.0	1.0	12.8	38.9	28.0

**NOTES:-**

1.  $V_{BR}$  measured after  $I_T$  applied for 300ms.  $I_T$  = Square Wave Pulse or equivalent.
2. Surge Current waveform per Figure 3 and Derate per Figure 2.
3.  $V_F = 3.5$  Volts max  $I_F = 35A$  for all types on 1/2 square or equivalent Sine Wave. PW = 8.3ms. Duty Cycle = 4 Pulse per Minute maximum.
4. For bipolar types with  $V_R$  10 Volts and under, the  $I_R$  limit is doubled.