

## TRANSIENT VOLTAGE SUPPRESSORS

### Features:

- HIGH SURGE CAPACITY FOR TRANSIENT PROTECTION IN LOW VOLTAGE CIRCUITS
- TRIPLE LAYER PASSIVATION
- SUBMINIATURE
- VOIDLESS HERMETICALLY SEALED GLASS PACKAGE
- VOLTAGE AND REVERSE LEAKAGE LOWEST AVAILABLE\*
- AVAILABLE IN BOTH AXIAL LEAD AND SURFACE MOUNT PACKAGES

### DESCRIPTION:

These Transient Voltage Suppressors (TVS's) feature the ability to clamp dangerous high voltage short term transients including direct or radiated electro-static-discharge (ESD) events before entering sensitive low voltage component regions of a circuit design. They are small efficient TVS's designed for very low operating voltage with low leakage requirements. They are also rated with the lowest TVS clamping voltage in the industry. For extremely short duration ESD events with extremely fast rise times, the surface mount device option provides minimal parasitic inductance for corresponding minimum transient voltage overshoot ( $Ldi/dt$ ) effects.

### MAXIMUM RATINGS:

Operating Temperature: -65°C to +175°C.

Storage Temperature: -65°C to +175°C.

Surge Power: 300W at 10/1000ms or 2000W at 8/20ms. \*

DC Power: 1.5W for  $T_L = 25^\circ\text{C}$  at 0.375 inch lead length.

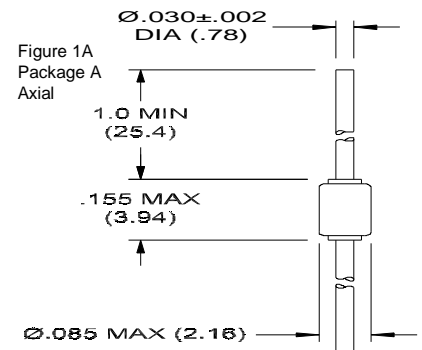
### ELECTRICAL CHARACTERISTICS:

TYPE NUMBER	BREAK DOWN VOLTAGE	TEST CURRENT	WORKING PEAK VOLTAGE	MAXIMUM LEAKAGE CURRENT	MAXIMUM CLAMPING VOLTAGE	MAXIMUM PEAK PULSE CURRENT	MAXIMUM TEMP COEF. OF $V_{(BR)}$
	$V_{(BR)MIN}$	$I_T$	$V_{WM}$	$I_D$	$V_C$	$(I_{PP})^{**}$	$\alpha_{V(BR)}$
PKG. A	Vdc	mAdc	Vdc	$\mu\text{Adc}$	V(pk)	A(pk)	% / °C
TVSP3K2.7	4.0	62	2.7	1500	5.7	53.0	+0 / -.06
TVSP3K3.0	4.3	58	3.0	1500	6.0	50.0	+0 / -.05
TVSP3K3.3	4.6	53	3.3	700	6.5	46.1	$\pm 0.25$
TVSP3K4.0	5.0	49	4.0	100	7.1	42.2	$\pm 0.30$
TVSP3K4.5	5.4	45	4.5	30	8.0	37.5	$\pm 0.40$
TVSP3K5.0	5.9	40	5.0	5	9.2	32.6	+ 050

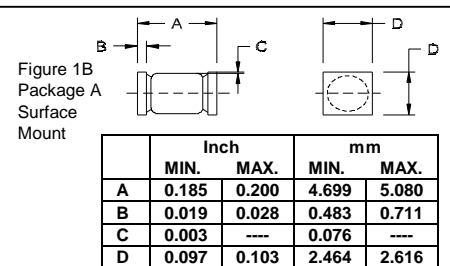
\* Consult Factory for Higher Rated Surge Power with Comparable Low Voltage and Low leakage Ratings

\*\* Maximum Peak Pulse Current at 10/1000ms

## TVSP3K2.7 thru TVSP3K5.0



## TVSP3K2.7SM thru TVSP3K5.0SM



### Mechanical

#### Characteristics

#### AXIAL LEADED DEVICES

CASE: Voidless hermetically Sealed Hard Glass.

LEAD MATERIALS: Solder Dipped Copper.

MARKING: Body Painted, Alpha Numeric.

Polarity: Cathode Band.

#### SURFACE MOUNT DEVICES

CASE: Voidless hermetically Sealed Hard Glass.

END CAP MATERIAL: Solid Silver.

END CAP CONFIGURATION: Square.

POLARITY: Cathode Dot or band on body. **TVSP3K2.7**

## thru TVSP3K5.0

## and TVSP3K2.7SM

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