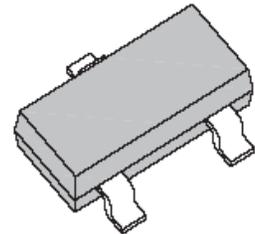


## SMD TVS/ESD Arrays

### Features

- Bidirectional ED protection
- Low leakage current, maximum 0.05uA at rated voltage
- IEC 61000-4-2 ESD:  $\pm 20\text{KV}$  air,  $\pm 18\text{KV}$  Contact Compliance
- ICE 61000-4-4 FET: 40A(5/50ns)
- ICE 61000-4-5 Lighting: 3A(8/20us)
- RoHS Compliant & Halogen Free
- AECQ-101 qualified



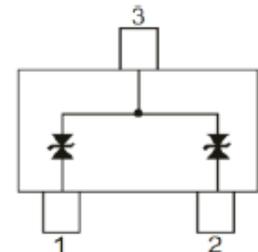
SOT-23



**HALOGEN  
FREE**

### Applications

- CAN bus protection
- Automotive application



### Mechanical Data

Case:	SOT-23, Plastic
Terminals:	Solderable per MIL-STD-750, Method 2026
Weight:	0.0003 ounces, 0.0084 grams

## Absolute Maximum Ratings

Symbol	Description	TVT24WH	Unit	Conditions
	Marking Code	24A		
<b>VESD</b>	ESD IEC 61000-4-2 (Air)	±20	KV	
<b>VESD</b>	ESD IEC 61000-4-2 (Contact)	±18	KV	
<b>TJ,TSTG</b>	Operating Junction and Storage Temperature Range	-55 to 150	°C	

Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

Symbol	Description	Min.	Typ.	Max.	Unit	Conditions
<b>VRWM</b>	Reverse Stand-Off Voltage (Note1)	-	-	24	V	
<b>VBR</b>	Reverse Breakdown Voltage	25.4	-	30.3	V	IR=5.0mA
<b>IR</b>	Reverse Leakage Current	-	-	50	µA	VR=24V
<b>VCL</b>	Clamping Voltage (8/20µs)	-	-	40	V	I <sub>PP</sub> =1A
		-	-	60	V	I <sub>PP</sub> =3A
	Clamping Voltage TLP (Note2)	-	34.5	-	V	I <sub>PP</sub> =4A
		-	38.0	-	V	I <sub>PP</sub> =8A
<b>CJ</b>	Off State Junction Capacitance	-	11	15	pF	VR=0V, Bias=f=1MHz
<b>RDYN</b>	Dynamic Resistance	-	0.88	-	Ω	tp=100ns

Note:

1. A transient suppressor is selected according to the working peak reverse voltage (VRWM), which should be equal to or greater than DC or continuous peak operation voltage level.
2. Testing using transmission line pulse (TLP) conditions: Z<sub>0</sub>=50Ω, tp=100ns

### Typical Characteristics Curves

Fig.1- Typical Junction Capacitance

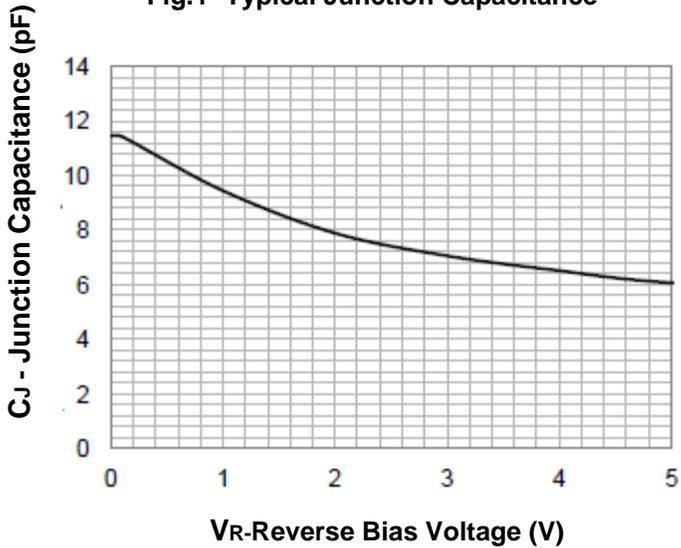


Fig.2- TLP Measurement

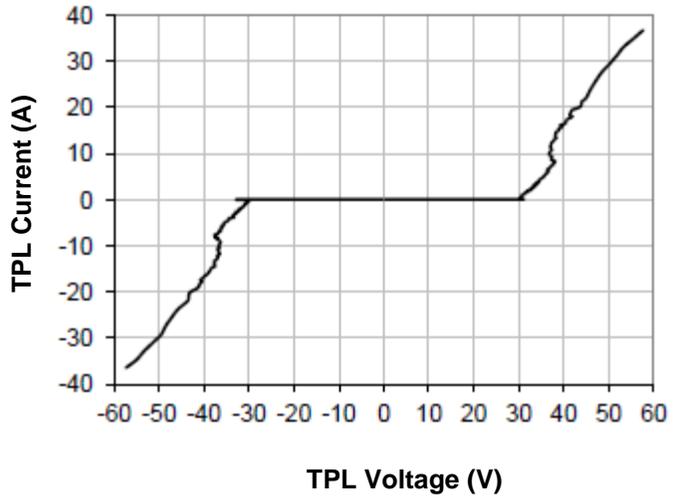


Fig.3- Typical Peak Clamping Voltage(8/20us)

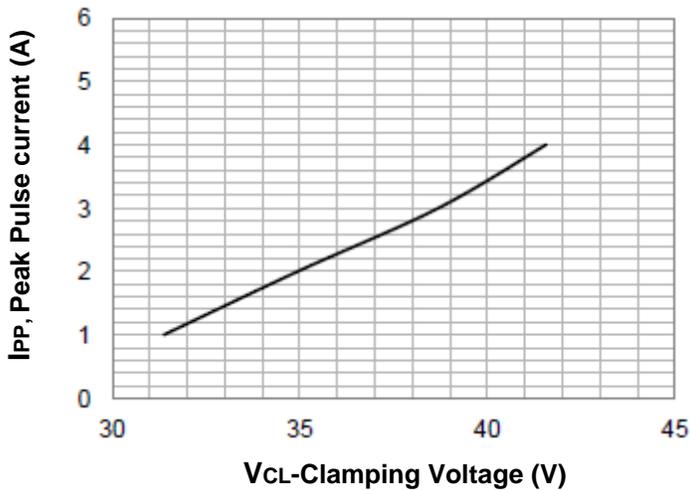
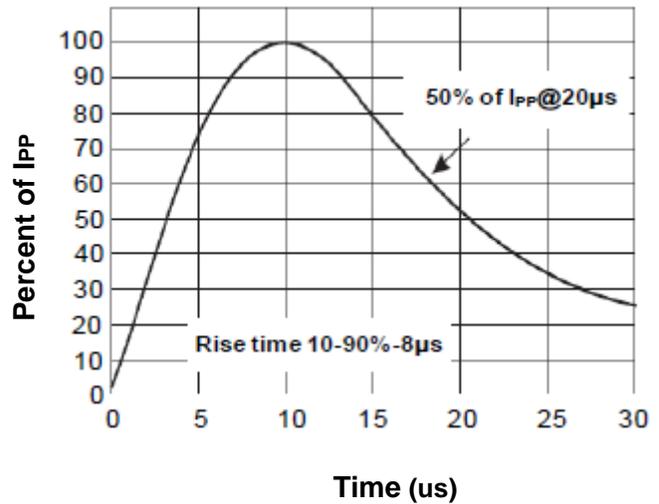
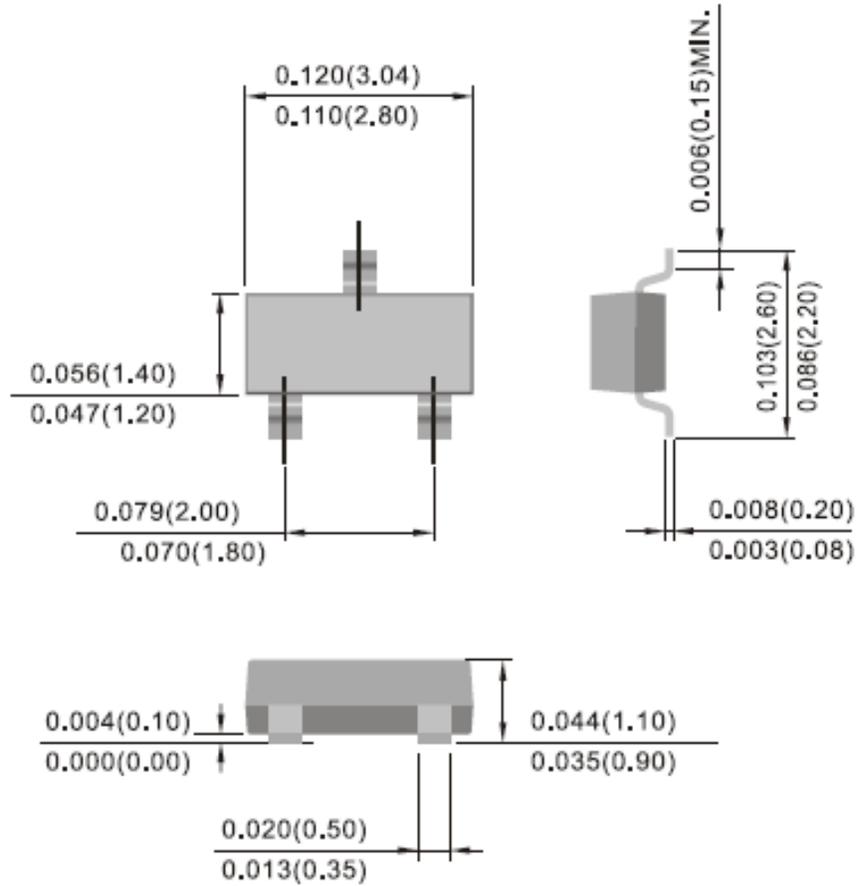


Fig.4- 8/20us Pulse Waveform

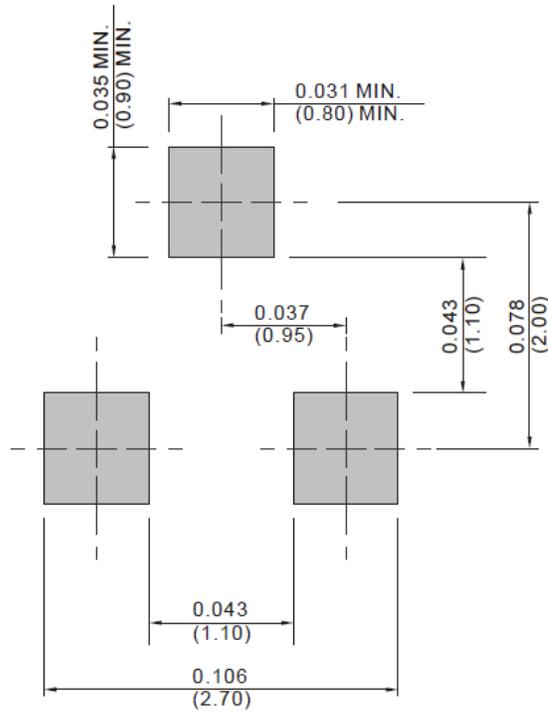


Dimensions in inch (mm)

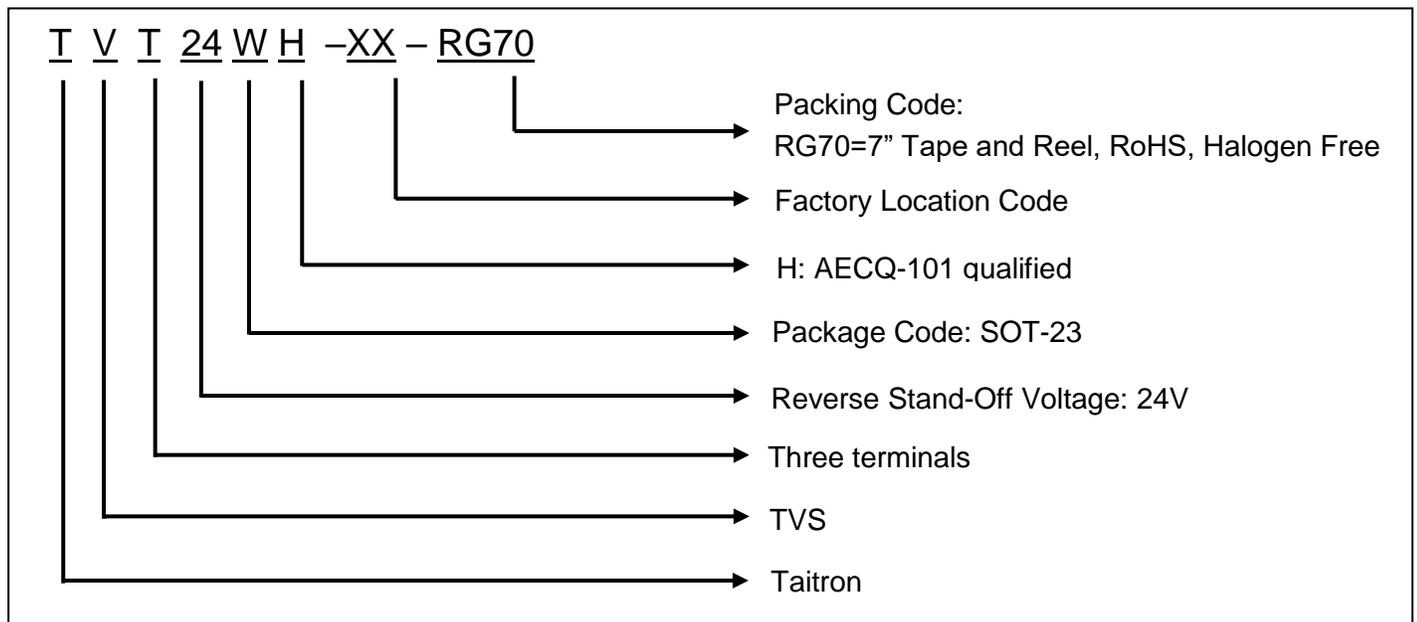


SOT-23

### Mounting Pad Layout inch (mm)



### Ordering Information



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