

## Very Low Capacitance TVS/ESD Protection

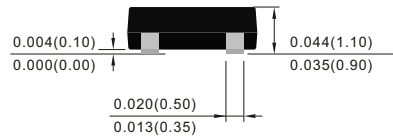
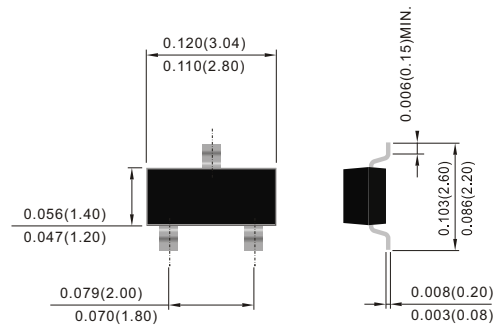
### Features

- \* Bidirectional ESD protection of one line
- \* IEC61000-4-2(ESD):  $\pm 15\text{kV}$  Air,  $\pm 8\text{kV}$  Contact Compliance with the capability up to  $\pm 30\text{kV}$
- \* IEC61000-4-4(EFT): 40A(5/50nS)
- \* IEC61000-4-5(Lightning): 3.5A(8/20 $\mu$ S)
- \* Low leakage current, maximum of 0.1 $\mu$ A at rated voltage
- \* Lead free in compliance with EU RoHS 2011/65/EU directive.
- \* Halogen Free

### Mechanical Data

- \* Case: SOT-23, Plastic
- \* Terminals: Solderable per MIL-STD-750, Method 2026
- \* Approx. Weight: 0.0003 ounces, 0.008 grams
- \* Marking: RA

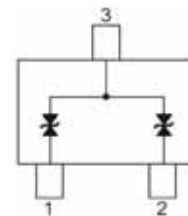
### SOT23



Dimensions in inches and (millimeters)

### Applications

- \* Mobile Phones and accessories
- \* Desktops, Servers and Notebook
- \* Hand held portable
- \* Digital Cameras
- \* Computer Interfaces Protection
- \* Serial and Parallel Ports Protection
- \* Control Signal Lines Protection



Top View

### Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	$V_{\text{ESD}}$	$\pm 30$	kV
ESD IEC61000-4-2(Contact)		$\pm 30$	
Operating Junction Temperature	$T_J$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{STG}}$	-55 to +150	$^\circ\text{C}$

## Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

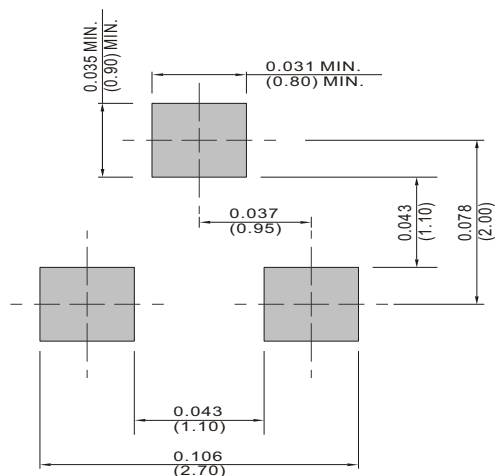
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	5	V
Snap-Break Voltage	$V_{SB}$	$I_{SB}=50\text{mA}$	5	-	8	V
Reverse Leakage Current	$I_R$	$V_R=5.0\text{V}$	-	-	0.1	$\mu\text{A}$
Clamping Voltage	$V_{CL}$	$I_{PP}=1\text{A}$ , $t_P=8/20\mu\text{s}$	-	-	9	V
		$I_{PP}=3.5\text{A}$ , $t_P=8/20\mu\text{s}$	-	-	12.5	
Clamping Voltage TLP (Note 1)	$V_{CL}$	$I_{PP}=4\text{A}$ , $t_P=100\text{ns}$	-	8.6	-	V
		$I_{PP}=8\text{A}$ , $t_P=100\text{ns}$	-	9.7	-	
Dynamic Resistance	$R_{DYN}$	$t_P=100\text{ns}$	-	0.27	-	$\Omega$
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$	-	-	6	pF

### NOTES :

- Testing using Transmission Line Pulse (TLP) conditions:  $Z_0 = 50\Omega$ ,  $t_P = 100\text{ ns}$ .

## MOUNTING PAD LAYOUT

### SOT23



Dimensions in inches and (millimeters)

## RATING AND CHARACTERISTICS CURVES ( ESD0215V0C)

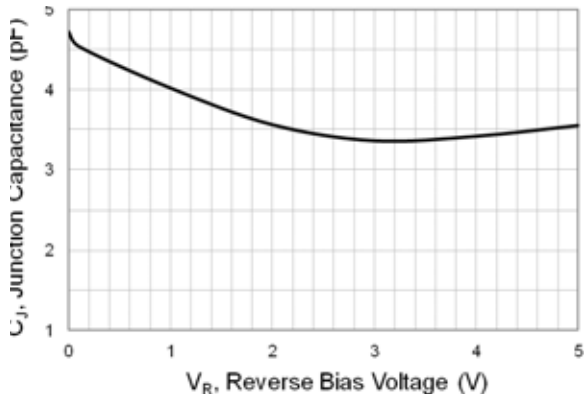


FIG.1 TYPICAL JUNCTION CAPACITANCE

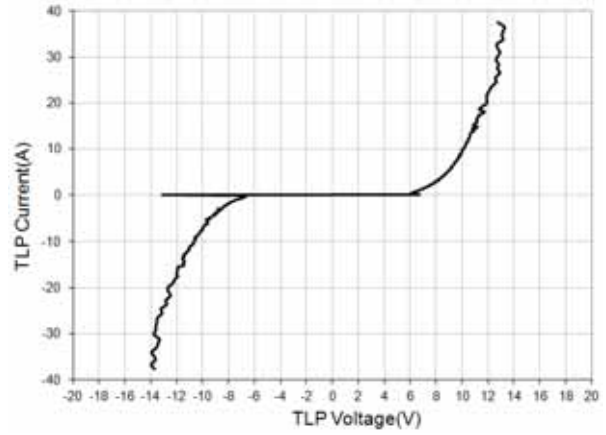


FIG.2 TRANSMISSION LINE PULSING (TLP) MEASUREMENT

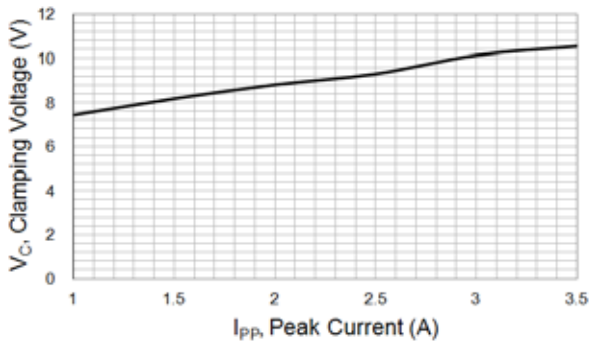


FIG.3 TYPICAL PEAK CLAMPING VOLTAGE(8/20  $\mu$ S)

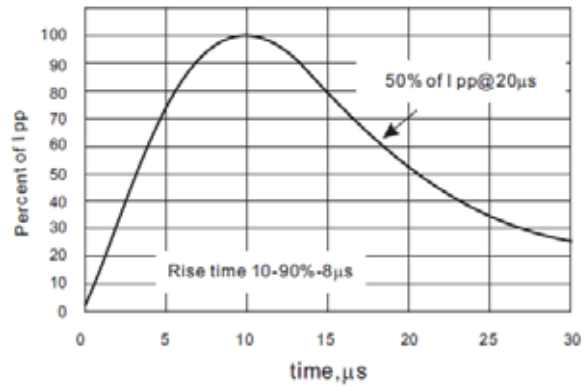


FIG.4 8/20  $\mu$ S PLUSE WAVEFORM

# PACKAGING OF DIODE

## REEL PACK

PACKAGE	PACKING CODE	REEL ( EA )	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOT-23/-3L	-T	3,000	---	---	178	438*438*220	180,000	---

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