RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

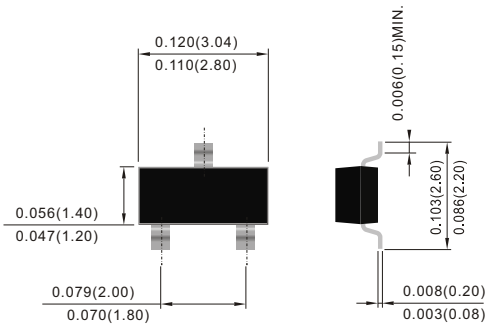
ESD0215V0C

Very Low Capacitance TVS/ESD Protection

Features

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

SOT23



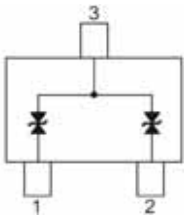
Dimensions in inches and (millimeters)

Mechanical Data

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

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°C unless otherwise noted)

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

Electrical Characteristics (T_A=25°C unless otherwise noted)

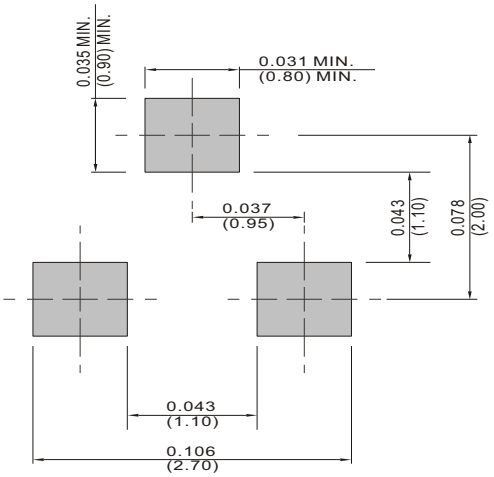
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Snap-Break Voltage	V_{SB}	I_{SB}=50mA	5	-	8	V
Reverse Leakage Current	I_R	V_R=5.0V	-	-	0.1	μA
Clamping Voltage	V_{CL}	I_{PP}=1A, t_P=8/20μs	-	-	9	V
		I_{PP}=3.5A, t_P=8/20μs	-	-	12.5	
Clamping Voltage TLP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

NOTES :

1. Testing using Transmission Line Pulse (TLP) conditions: Z_0 = 50Ω , t_P = 100 ns.

MOUNTING PAD LAYOUT

SOT23



Dimensions in inches and (millimeters)

RATING AND CHARACTERISTICS CURVES (ESD0215V0C)

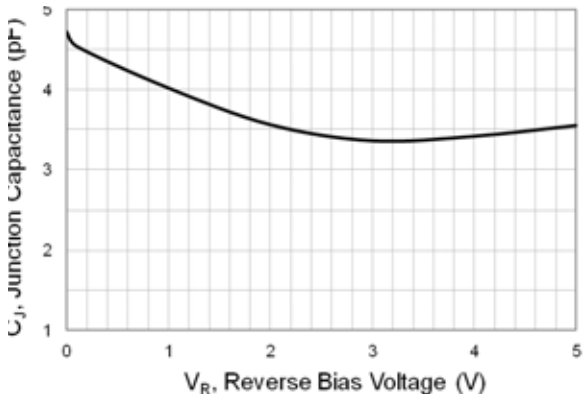


FIG.1 TYPICAL JUNCTION CAPACITANCE

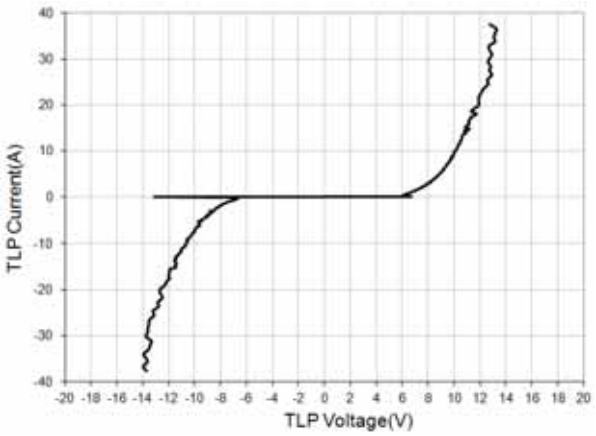


FIG.2 TRANSMISSION LINE PULSING (TLP) MEASUREMENT

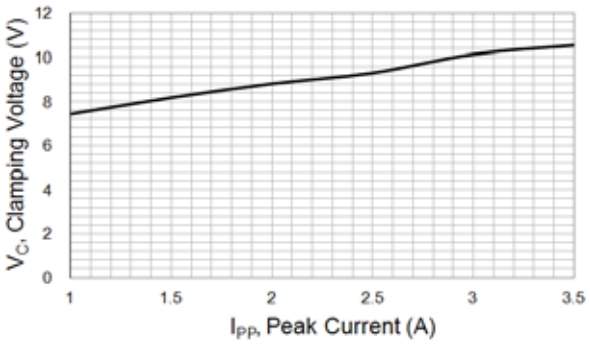


FIG.3 TYPICAL PEAK CLAMPING VOLTAGE(8/20 uS)

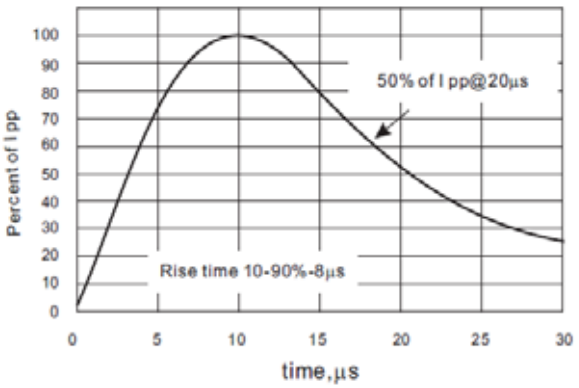


FIG.4 8/20 uS PLUSE WAVEFORM

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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