



#### **BI-DIRECTIONAL ESD PROTECTION DIODE**

This Penta has been designed to Protect Sensitive Equipment against ESD and to prevent Latch-Up events in CMOS circuitry operating at 5Vdc and below. This offers an integrated solution to protect up to data line where the board space is a premium.

#### **SPECIFICATION FEATURES**

- 25W Power Dippsipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 1μA@5Vdc
- Very low Clamping voltage
- IEC 61000-4-2 ESD 15kV air, 8kV Contact Compliance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **APPLICATIONS**

- Video I/O ports protection
- Set Top Boxes
- Portable Instrumentation

#### **MECHANICAL DATA**

· Case: SOD-923, Plastic

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.00002 ounces, 0.0005 grams.

· Marking: X

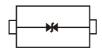


Fig.138(TOP VIEW)

# 0.034(0.85) 0.029(0.75) 0.021(0.55) 0.007(0.18) 0.003(0.08)

#### **MAXIMUM RATINGS**

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 μs Waveform)	Ppp	25	W
Peak Pulse Current (8/20 μs Waveform)	I PP	2	А
ESD Voltage (HBM)	V <sub>ESD</sub>	>25	kV
Operating Junction and Storage Temperature Range	Тл,Твтс	-55 to +150	°C

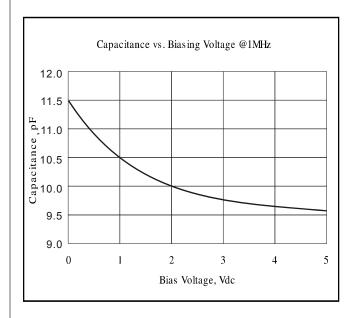
#### ELECTRICAL CHARACTERISTICS (TA=25°C)

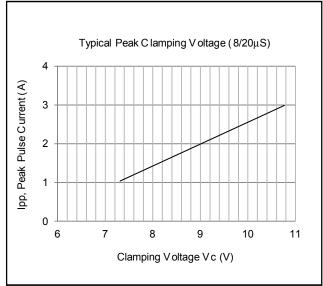
Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage	Vwrm		-	-	5.0	V
Reverse Breakdown Voltage	VBR	I BR=1mA	5.78	-	7.82	V
Reverse Leakage Current	l <sub>R</sub>	V <sub>R</sub> =5V	-	-	1.0	μΑ
Clamping Voltage (8/20μs)	Vc	I PP=2A	-	-	12.5	V
Off State Junction Capacitance	Сл	0 Vdc Bias f=1MHz	-	-	15	pF

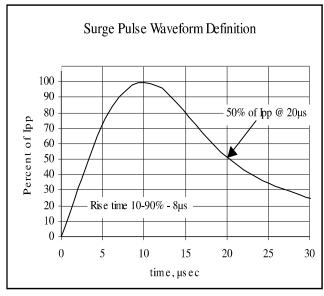




#### **TYPICAL CHARACTERISTICS**



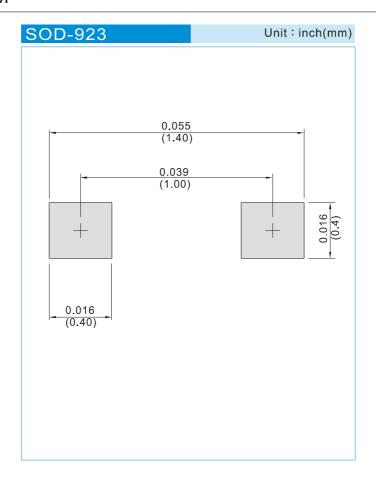








#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

Packing information

T/R - 8K per 7" plastic Reel





#### Part No\_packing code\_Version

PJSD05LCTM\_R1\_00001

# For example : RB500V-40\_R2\_00001 Part No. Serial number Version code means HF Packing size code means 13" Packing type means T/R

Packing Code XX			Version Code XXXXX			
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			





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