



# PJSD05CTS

## 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

- 100W Power Dissipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 0.5µA@3.5Vdc
- Very low Clamping voltage
- IEC 61000-4-2 ESD 15kV air, 8kV Contact Compliance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### APPLICATIONS

- Video I/O ports protection
- Set Top Boxes
- Portable Instrumentation
- Case : SOD-523 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.0001 ounces, 0.0014 grams
- Marking : RS

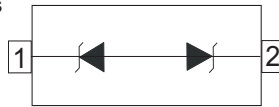
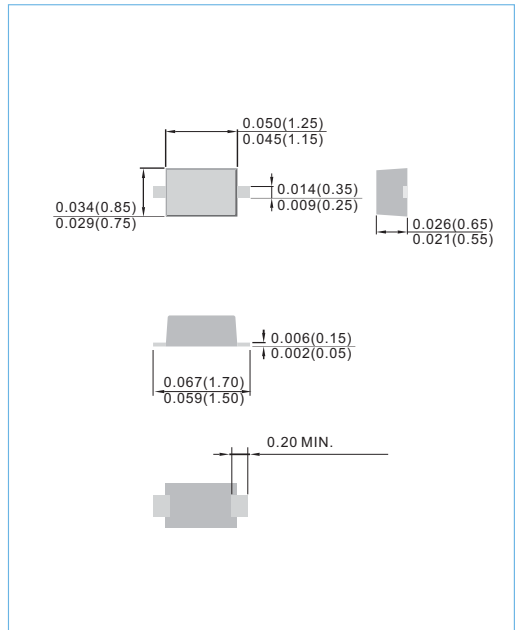


Fig.130

### SOD-523

Unit : inch(mm)



### MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 µs Waveform)	P <sub>PP</sub>	100	W
Peak Pulse Current (8/20 µs Waveform)	I <sub>PP</sub>	5.0	A
ESD Voltage (HBM)	V <sub>ESD</sub>	>25	kV
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C

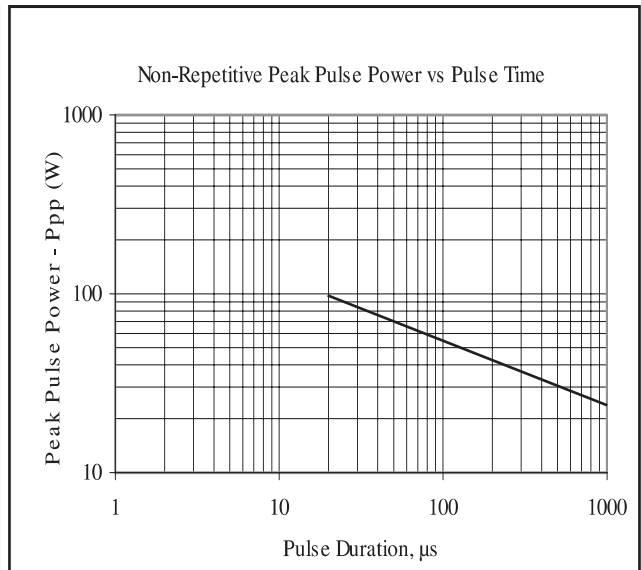
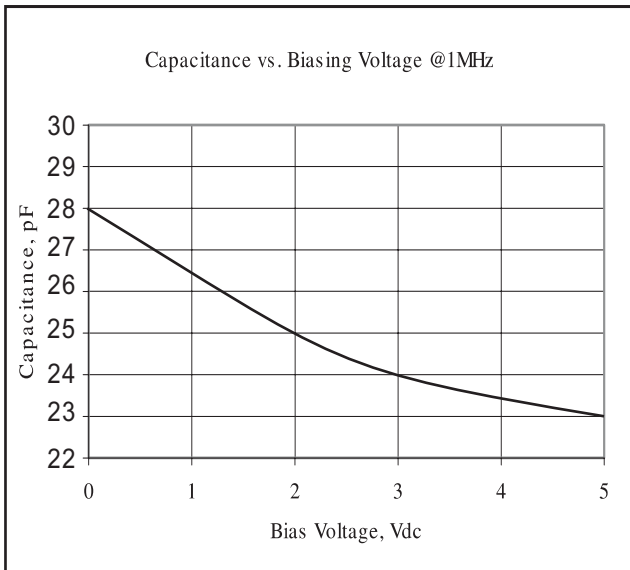
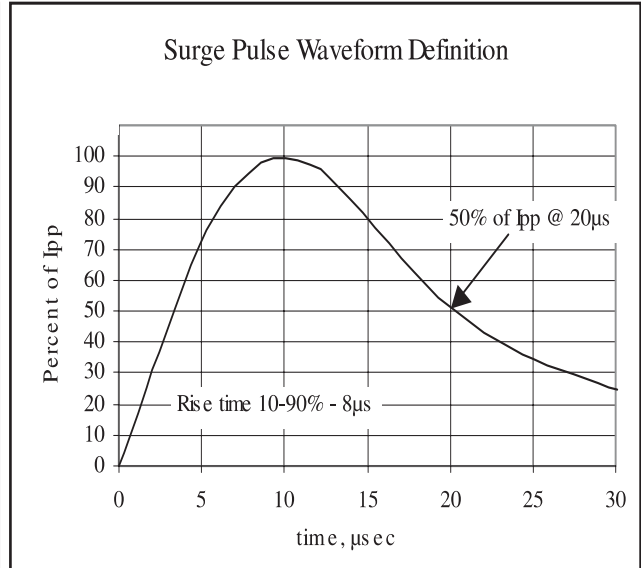
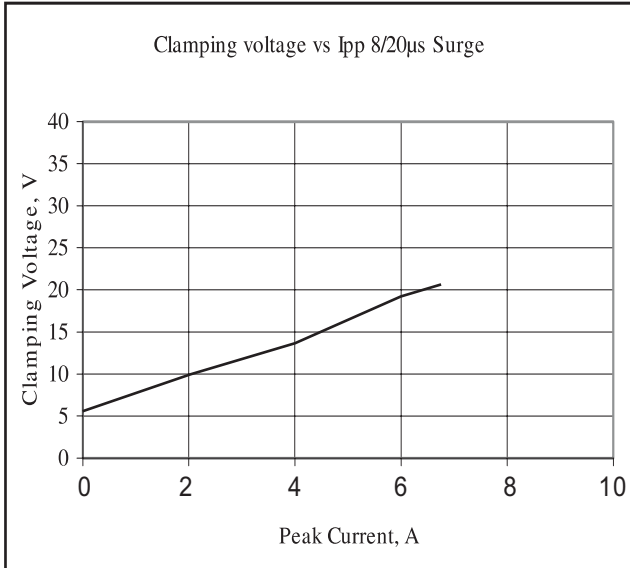
### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V <sub>WRM</sub>		-	-	5.0	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	5.78	-	7.82	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =3.5V	-	-	0.5	µA
Clamping Voltage (8/20µs)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	-	12	V
Clamping Voltage (8/20µs)	V <sub>C</sub>	I <sub>PP</sub> =4A	-	-	15	V
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz	-	-	30	pF
Off State Junction Capacitance	C <sub>J</sub>	5 Vdc Bias f=1MHz	-	-	25	pF



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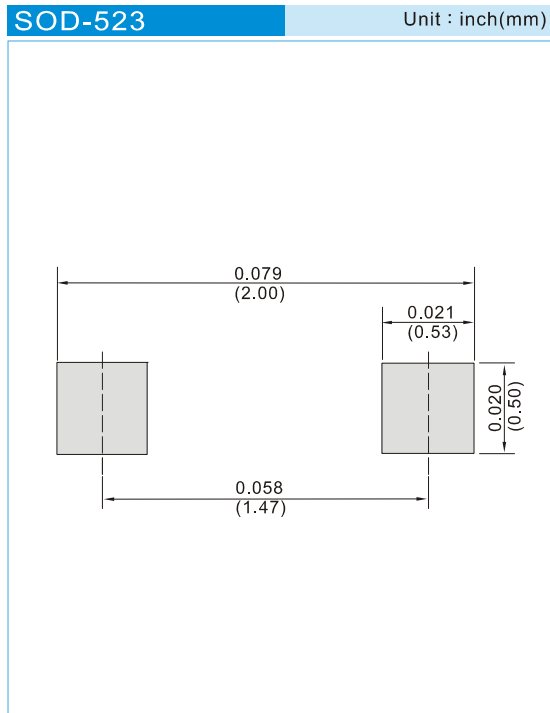
## TYPICAL CHARACTERISTICS





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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel



# PJSD05CTS

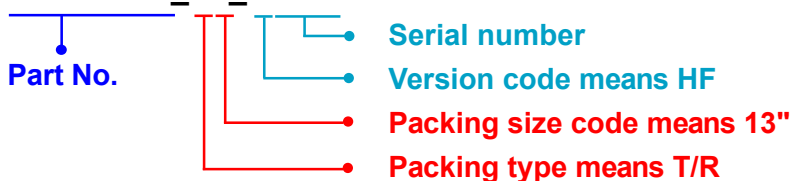
## Part No\_packing code\_Version

PJSD05CTS\_R1\_00001

PJSD05CTS\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	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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