



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

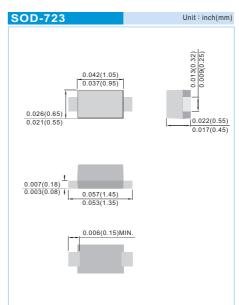
This Penta has been designed to Protect Sensitive Equipment against ESD and to prevent Latch-Up events in CMOS circuitry operating at 5Vdc and below. This offers an integrated solution to protect up to data line where the board space is a premium.

### **SPECIFICATION FEATURES**

- 100W Power Dippsipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 0.5 μA@5Vdc
- · Very low Clamping voltage
- IEC 61000-4-2 ESD 15kV air, 8kV Contact Compliance
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### **APPLICATIONS**

- · Video I/O ports protection
- Set Top Boxes
- · Portable Instrumentation
- · Case: SOD-723, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0008 grams
- · Marking: RB



### **MAXIMUM RATINGS**

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

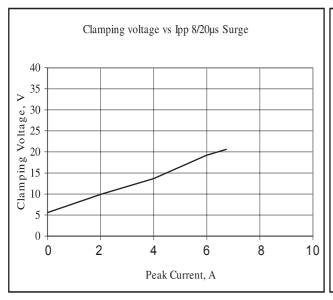
#### ELECTRICAL CHARACTERISTICS (TA=25°C)

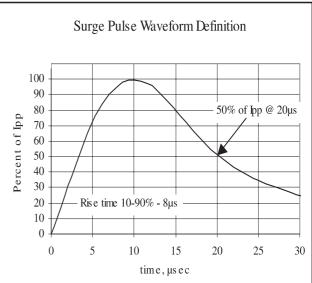
Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage	Vwrm		-	-	5.0	V
Reverse Breakdown Voltage	VBR	I BR=1mA	5.78	-	7.82	V
Reverse Leakage Current	IR	V <sub>R</sub> =3.5V	-	-	0.5	μА
Clamping Voltage (8/20μs)	Vc	I pp=1A	-	-	12	V
Clamping Voltage (8/20μs)	Vc	I pp=4A	-	-	15	V
Off State Junction Capacitance	Сл	0 Vdc Bias f=1MHz	-	-	30	pF
Off State Junction Capacitance	Сл	5 Vdc Bias f=1MHz	-	-	25	pF

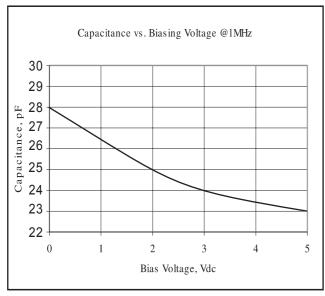




### TYPICAL CHARACTERISTICS







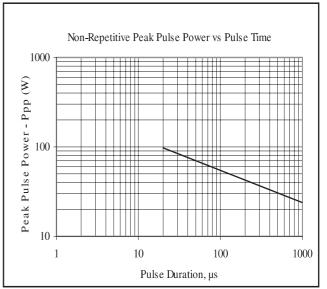


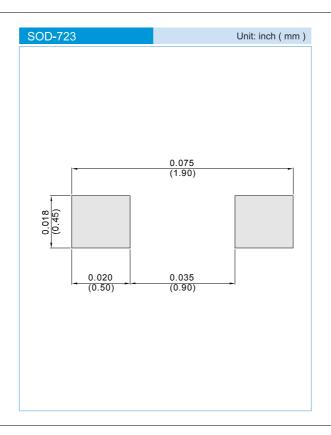


Fig.130





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 8K per 7" plastic Reel

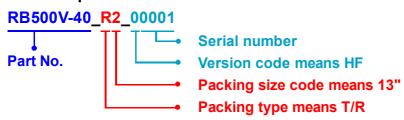




## Part No\_packing code\_Version

PJSD05CTG\_R1\_00001

## For example:



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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