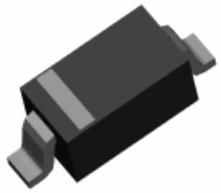
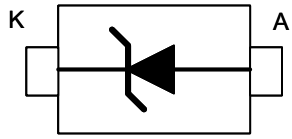
400W LOW CLAMPING VOLTAGE SINGLE TVS FOR PROTECTION

This TVS/Zener Series has been designed to Protect Sensitive Equipment against ESD and to prevent Latch-Up events in very sensitive CMOS circuitry operating at 5V, 12V, 15V and 24Vdc .These devices come in an industry standard SOD123 package making them suitable for Portable/Computing Electronics, where the board space is a premium.





SOD123

SPECIFICATION FEATURES

- **400W Power Dissipation (8/20μs Waveform)**
- **Very Low Leakage Current**
- **IEC61000-4-2 ESD 15kV air, 8kV Contact Compliance**
- **SOD123 Package**
- **Lead free in compliance with EU RoHS 2011/65/EU directive**
- **Green molding compound as per IEC61249 Std. . (Halogen Free)**

APPLICATIONS

- **Personal Digital Assistant (PDA)**
- **Digital Cameras**
- **Portable Instrumentation**
- **Mobile Phones and Accessories**
- **Desktops, Laptops**

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20μs Waveform)	P_{pp}	400	W
ESD Voltage (HBM)	V_{ESD}	25	kV
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS Tj = 25°C

PJSD05 Marking T1S

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} =1 mA	6.0			V
Reverse Leakage Current	I_R	V_R =5V			20	μA
Clamping Voltage (8/20μs)	V_c	I_{pp} =5A			7.5	V
Clamping Voltage (820μs)	V_c	I_{pp} =24A			16	V
Off State Junction Capacitance	Cj	0 Vdc Bias f = 1MHz			550	pF
Off State Junction Capacitance	Cj	5 Vdc Bias f = 1MHz			235	pF

ELECTRICAL CHARACTERISTICS Tj = 25°C

PJSD12 Marking T4S

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				12	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} =1mA	13.3			V
Reverse Leakage Current	I_R	V_R = 12V			1	µA
Clamping Voltage (8/20µs)	V_c	I_{pp} = 5A			14.5	V
Clamping Voltage (8/20µs)	V_c	I_{pp} = 17A			23	V
Off State Junction Capacitance	Cj	0 Vdc Bias f = 1MHz			180	pF

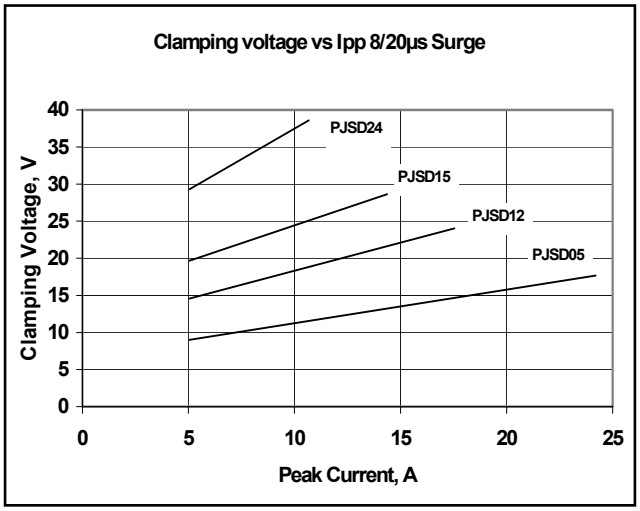
PJSD15 Marking T5S

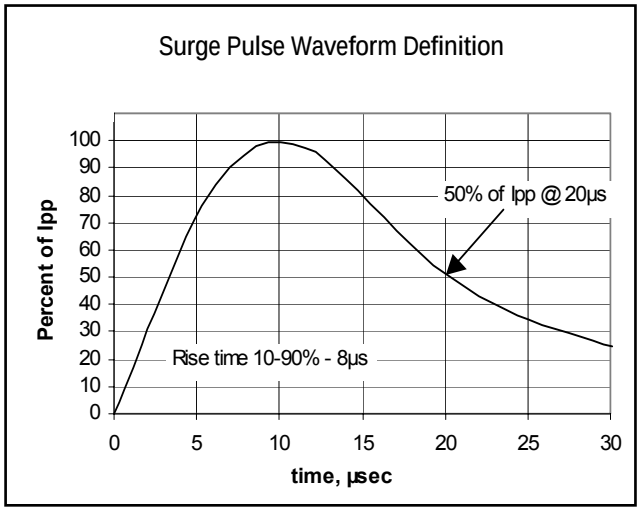
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				15	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} =1mA	16.7			V
Reverse Leakage Current	I_R	V_R = 15V			1	µA
Clamping Voltage (8/20µs)	V_c	I_{pp} = 5A			19	V
Clamping Voltage (8/20µs)	V_c	I_{pp} = 14A			28	V
Off State Junction Capacitance	Cj	0 Vdc Bias f = 1MHz			165	pF

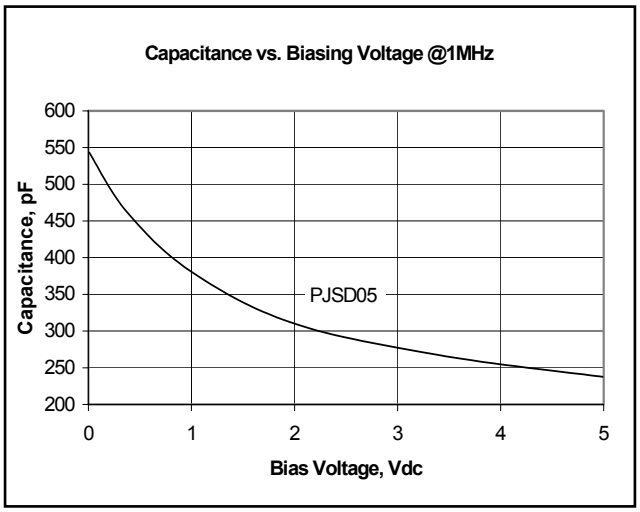
PJSD24 Marking T6S

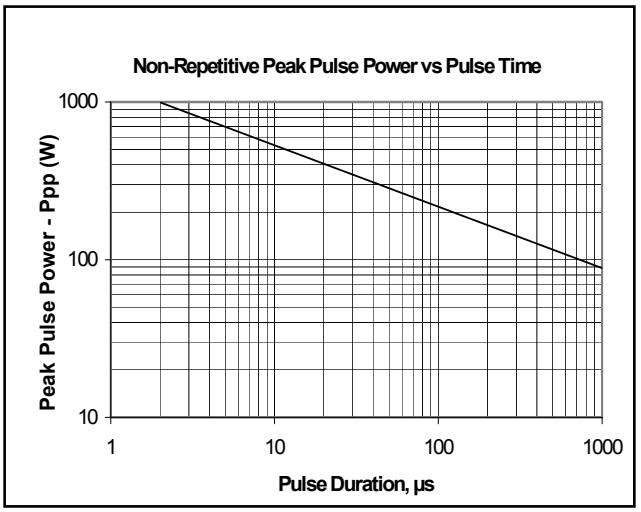
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				24	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} =1mA	26.7			V
Reverse Leakage Current	I_R	V_R = 24V			1	µA
Clamping Voltage (8/20µs)	V_c	I_{pp} = 5A			29	V
Clamping Voltage (8/20µs)	V_c	I_{pp} = 11A			37	V
Off State Junction Capacitance	Cj	0 Vdc Bias f = 1MHz			120	pF

TYPICAL CHARACTERISTICS



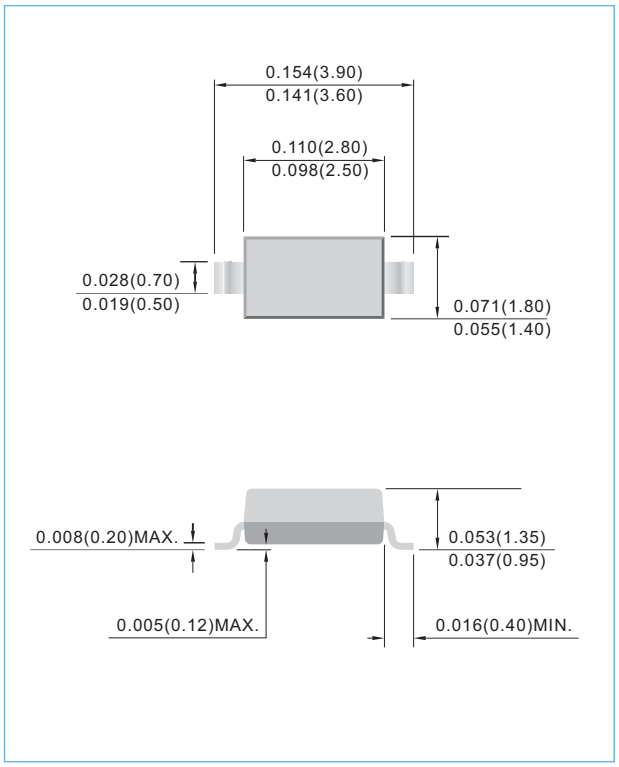




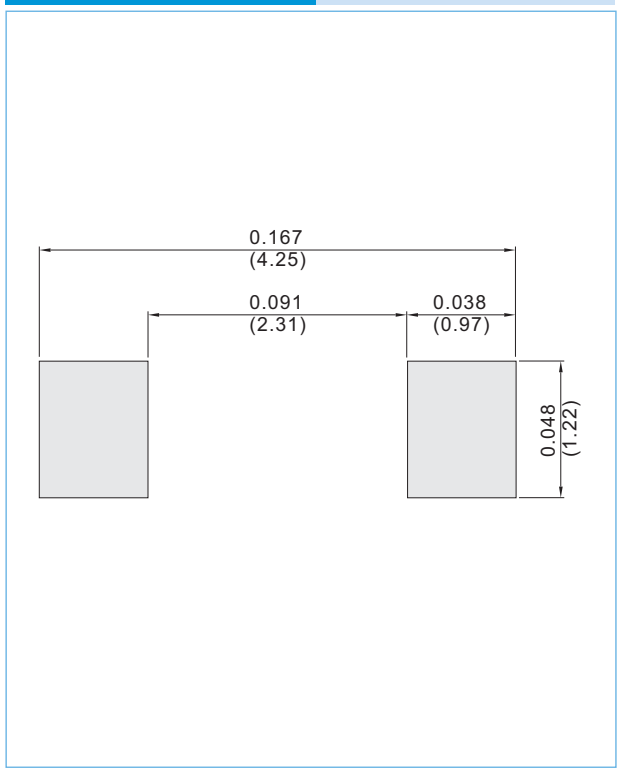


PACKAGE DIMENSIONS AND BOND PAD LAYOUT

SOD-123 Unit : inch(mm)



SOD-123 Unit : inch(mm)



PJSD05 SERIES

Part No_packing code_Version

PJSD05_R1_00001

PJSD05_R2_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	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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			

PJSD05 SERIES

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