



400W LOW CLAMPING VOLTAGE SINGLE TVS FOR PROTECTION

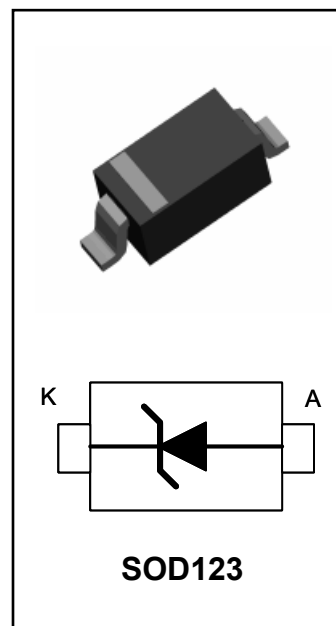
This TVS/Zener Series has been designed to Protect Sensitive Equipment against ESD and to prevent Latch-Up events in very sensitive CMOS circuitry operating at 5V, 12V, 15V and 24Vdc. These devices come in an industry standard SOD123 package making them suitable for Portable/Computing Electronics, where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

SPECIFICATION FEATURES

- 400W Power Dissipation (8/20 μ s 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 (8/20 μ s 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 $T_J = 25^\circ\text{C}$

PJSD05 Marking T1S

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

**ELECTRICAL CHARACTERISTICS** $T_j = 25^{\circ}\text{C}$ **PJSD12 Marking T4S**

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

PJSD15 Marking T5S

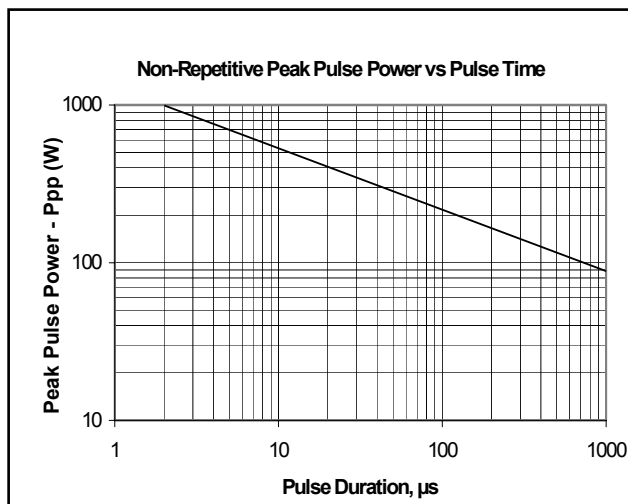
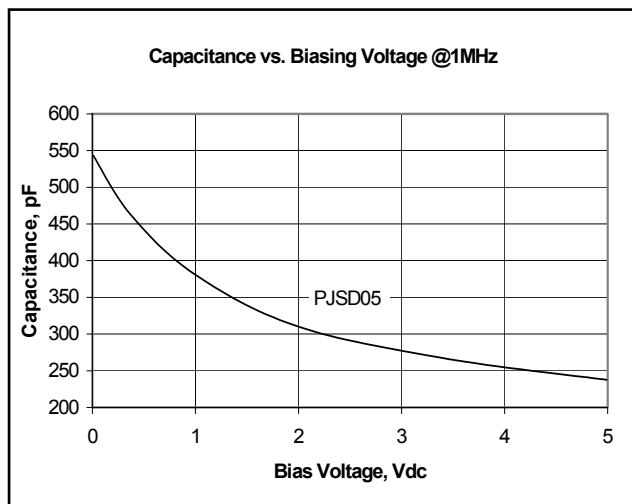
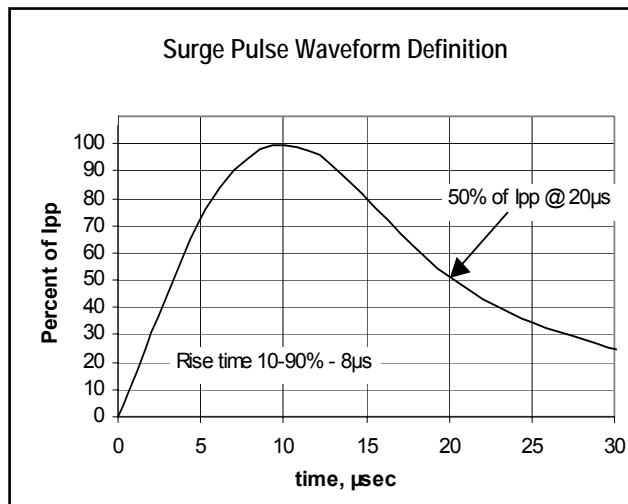
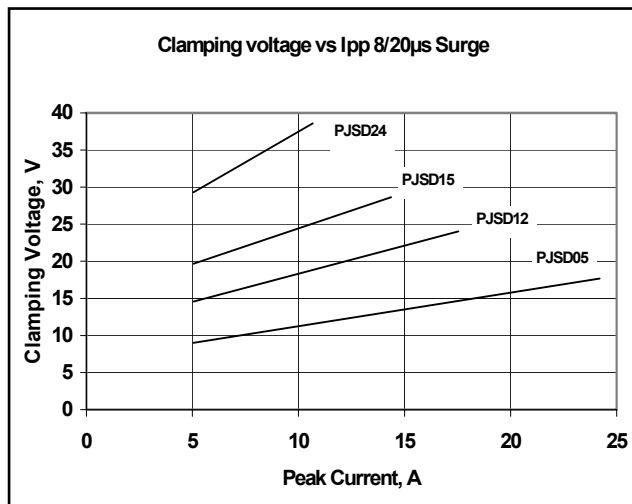
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				15	V
Reverse Breakdown Voltage	V_{BR}	$I_{\text{BR}} = 1\text{mA}$	16.7			V
Reverse Leakage Current	I_{R}	$V_{\text{R}} = 15\text{V}$			1	μA
Clamping Voltage (8/20 μs)	V_{C}	$I_{\text{pp}} = 5\text{A}$			19	V
Clamping Voltage (8/20 μs)	V_{C}	$I_{\text{pp}} = 14\text{A}$			28	V
Off State Junction Capacitance	C_{j}	0 Vdc Bias $f = 1\text{MHz}$			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}	$I_{\text{BR}} = 1\text{mA}$	26.7			V
Reverse Leakage Current	I_{R}	$V_{\text{R}} = 24\text{V}$			1	μA
Clamping Voltage (8/20 μs)	V_{C}	$I_{\text{pp}} = 5\text{A}$			29	V
Clamping Voltage (8/20 μs)	V_{C}	$I_{\text{pp}} = 11\text{A}$			37	V
Off State Junction Capacitance	C_{j}	0 Vdc Bias $f = 1\text{MHz}$			120	pF



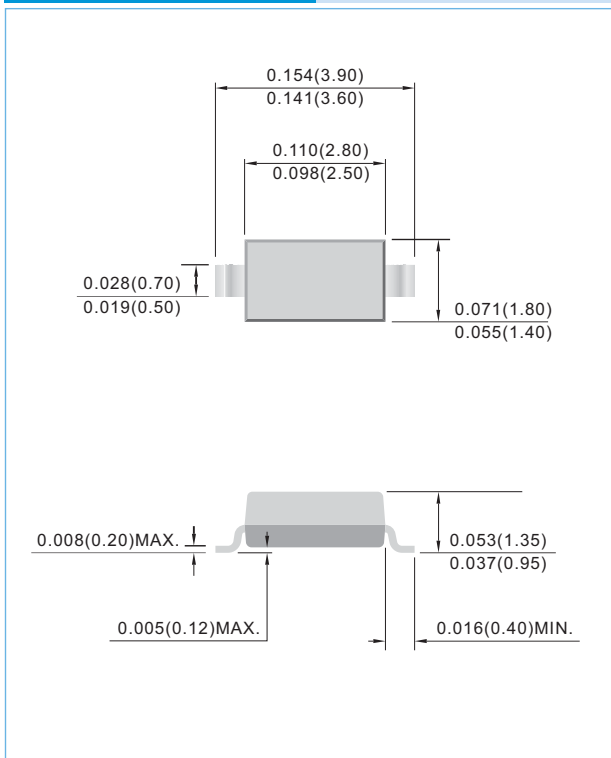
TYPICAL CHARACTERISTICS



PACKAGE DIMENSIONS AND BOND PAD LAYOUT

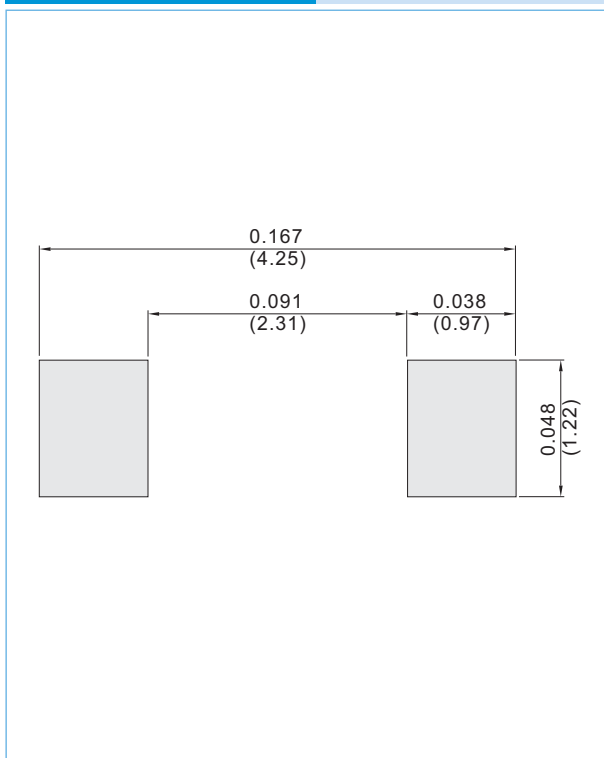
SOD-123

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