



DATA SHEET

PJSD05W~PJSD12W

SINGLE LINE TVS DIODE FOR ESD PROTECTION IN PORTABLE ELECTRONICS

VOLTAGE 5 ~12 Volts **POWER** 320 Watts

SOD-323 Unit: inch (mm)

FEATURES

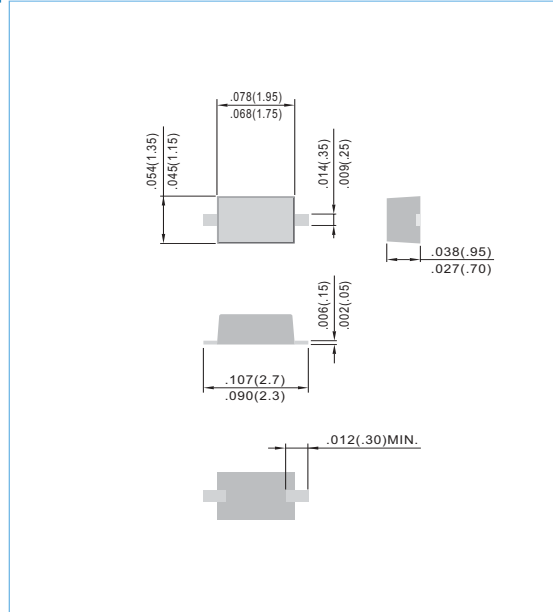
- 320 Watts peak pules power ($t_p = 8/20$ us)
- Small package for use in portable electronics
- Suitable replacement for MLV's in ESD protection applications
- Low clamping voltage and leakage current
- Pb free product are available : 99 Sn above can meet RoHS environment substance directive request

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Insturmentation
- Pagers Peripherals

MECHANICAL DATA

Case: SOD-323 plastic case.
 Terminals : Solderable per MIL-STD-750,Method 2026
 Polarity : See Diagram Below
 Approx Weight : 0.0041gram
 Mounting Postion: Any





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20 \mu s$)	P_{PK}	350	W
ESD Voltage	V_{ESD}	30	KV
Lead Soldering Temperature	T_L	260 (10 sec.)	$^{\circ}C$
Operating Temperature	T_J	-50 to +125	$^{\circ}C$
Storage Temperature	T_{STG}	-50 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

PJSD05W

Parameter	Symbol	Conditions	Min	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6			
Reverse Leakage Current	I_R	$V_{RWM} = 5V$ $T = 25^{\circ}C$			10	μA
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8 / 20 \mu sec$			9.8	V
Clamping Voltage	V_C	$I_{PP} = 24A$ $t_p = 8 / 20 \mu sec$			14.5	V
Peak Pulse Current	I_{PP}	$t_p = 8 / 20 \mu sec$			24	A
Junction Capacitance	C_J	$V_R = 0V,$ $f = 1MHz$			350	pF

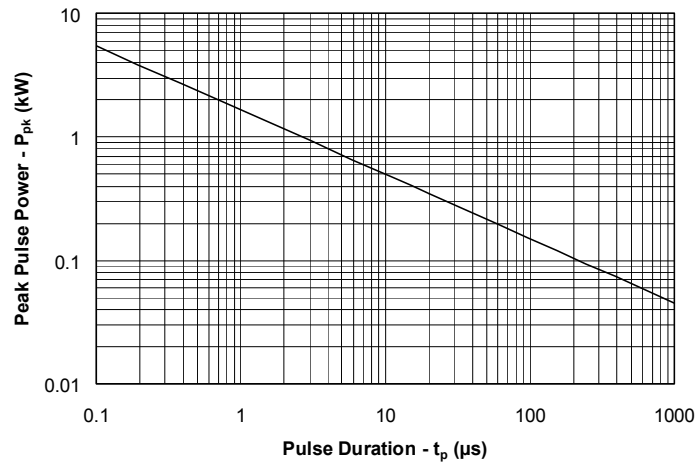
ELECTRICAL CHARACTERISTICS

PJSD12W

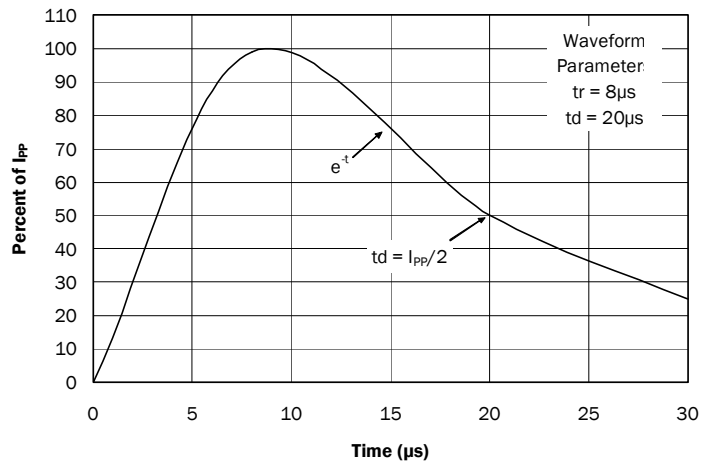
Parameter	Symbol	Conditions	Min	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	13.3			
Reverse Leakage Current	I_R	$V_{RWM} = 12V$ $T = 25^{\circ}C$			1	μA
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8 / 20 \mu sec$			19	V
Clamping Voltage	V_C	$I_{PP} = 15A$ $t_p = 8 / 20 \mu sec$			25	V
Peak Pulse Current	I_{PP}	$t_p = 8 / 20 \mu sec$			15	A
Junction Capacitance	C_J	$V_R = 0V,$ $f = 1MHz$			150	pF



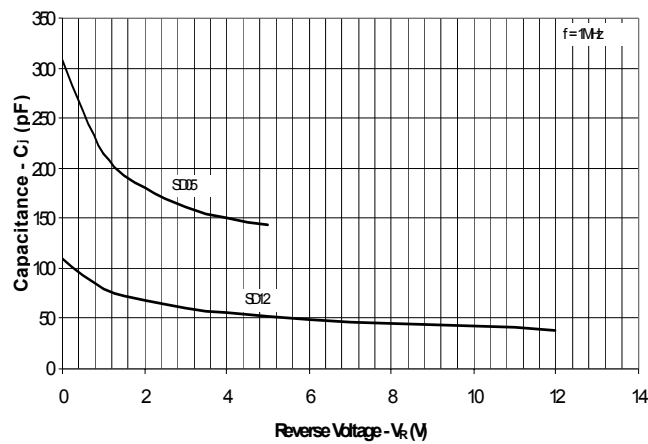
Non-Repetitive Peak Pulse Power vs. Pulse Time



Pulse Waveform

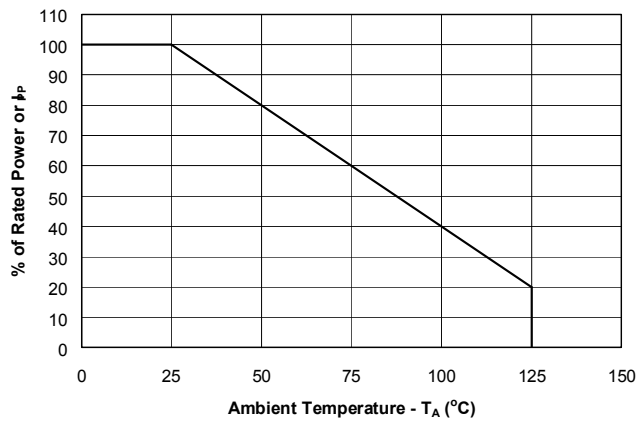


Capacitance vs. Reverse Voltage

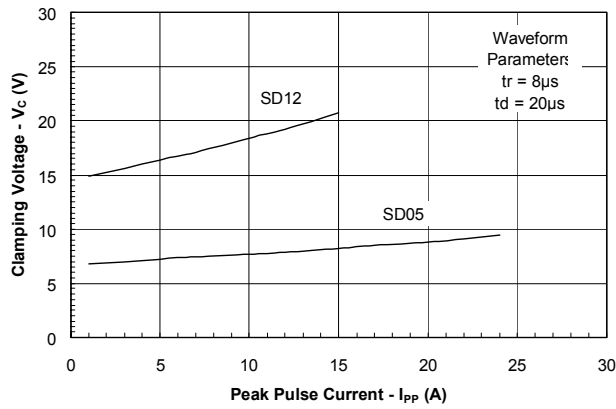




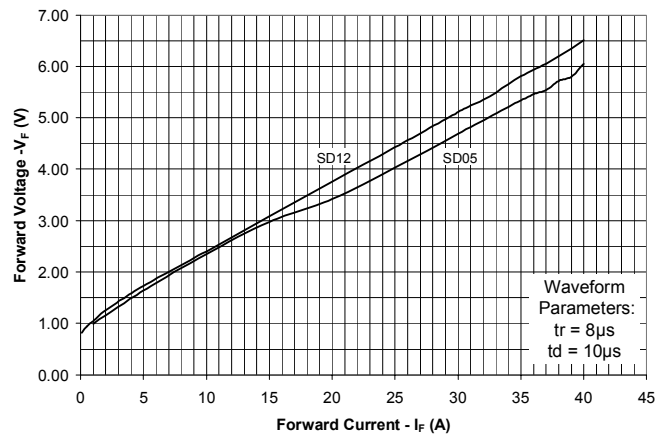
Power Derating Curve



Clamping Voltage vs. Peak Pulse Current

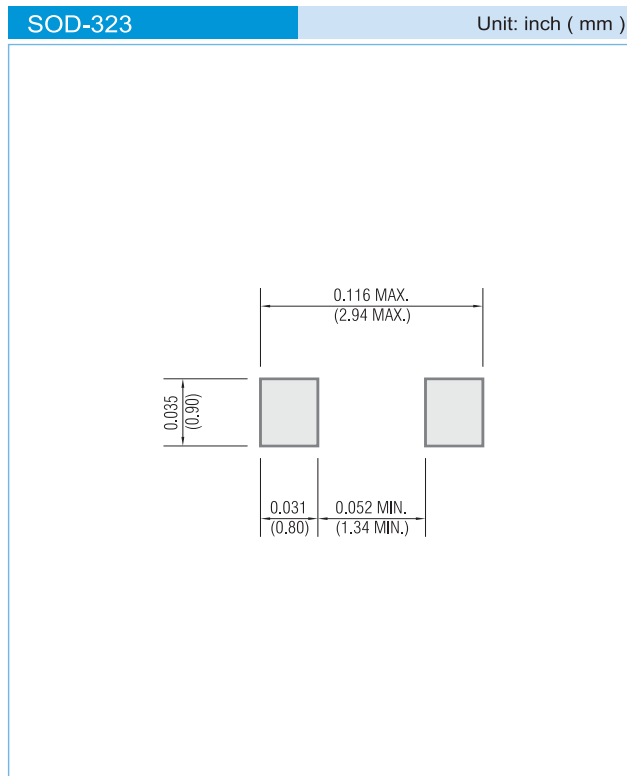


Forward Voltage vs. Forward Current





MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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