

PJSD03TM ~ PJSD15TM

ESD PROTECTION DIODES

FEATURES

- IEC61000-4-2(ESD): $\pm 30\text{kV}$ Air, $\pm 30\text{kV}$ Contact
($\pm 15\text{kV}$ Air, $\pm 15\text{kV}$ Contact for 15V)
- IEC61000-4-4(EFT): 40A(5/50nS)
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

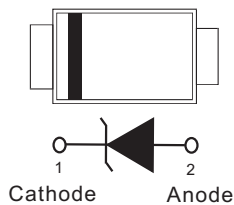
MECHANICAL DATA

Case: SOD-923, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

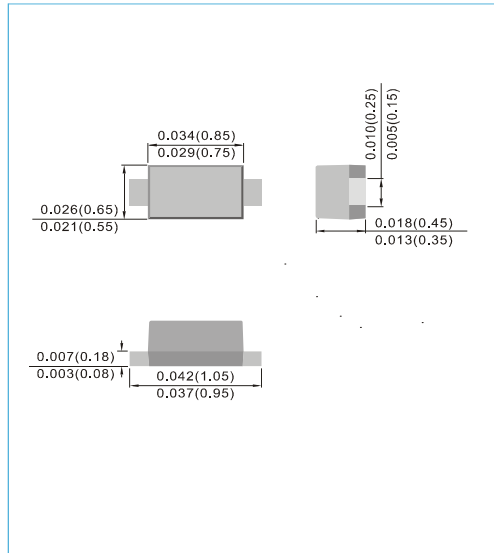
Polarity: Color band denotes cathode end

Approx.Weight: 0.00002 ounce, 0.0005 gram



SOD-923

Unit : inch(mm)



MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation (8/20 μ s Waveform)	P _{PP}	40	W
Lead Solder Temperature-Maximum (10 Second Duration)	T _L	260	°C
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

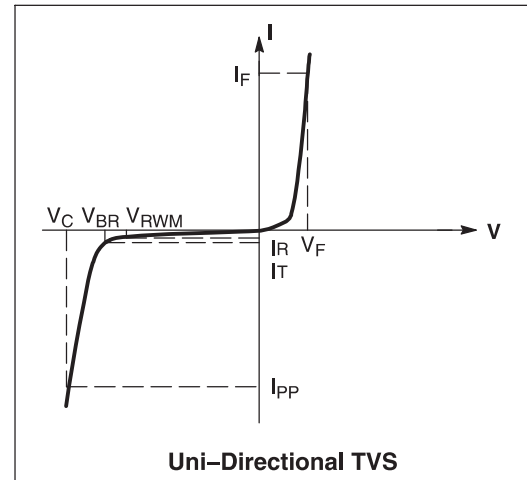
Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Note : 1.FR-4 = 70 x 60 x 1mm.

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ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol
Maximum Reverse Peak Pulse Current	I_{PP}
Clamping Voltage@ I_{PP}	V_C
Working Peak Reverse Voltage	V_{RWM}
Maximum Reverse Leakage Current@ V_{RWM}	I_R
Breakdown Voltage @ I_T	V_{BR}
Test Current	I_T
Forward Current	I_F
Forward Voltage@ I_F	V_F
Peak Pulse Power Dissipation	P_{PP}
Max.Capacitance@ $V_R=0$ and $f=1\text{MHz}$	C_J



ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted, $V_F=1.1\text{V Max.}@I_F=10\text{mA}$)

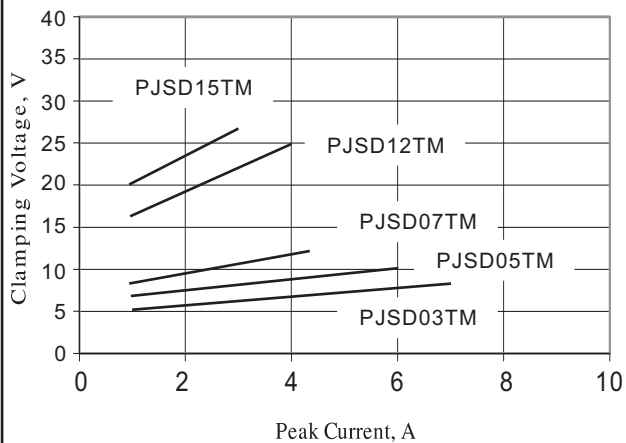
Part Number	V_{RWM}	$I_R@V_{RWM}$	$V_{BR}@I_T$ (Note 2)	C_J (Note 3)	V_C	I_{PP}	I_T	Marking
	Max.	Max.	Min.	Max.	Max Per 8x20 μs			
	V	μA	V	pF	V			
PJSD03TM	3.3	2.5	5.4	50	10	6	1.0	h
PJSD05TM	5	1	6.2	35	12	5	1.0	b
PJSD07TM	7	5	7.5	30	15	4	1.0	c
PJSD12TM	12	1	13.3	18	23	3	1.0	d
PJSD15TM	15	1	17.0	15	30	2	1.0	e

Note : 2. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C

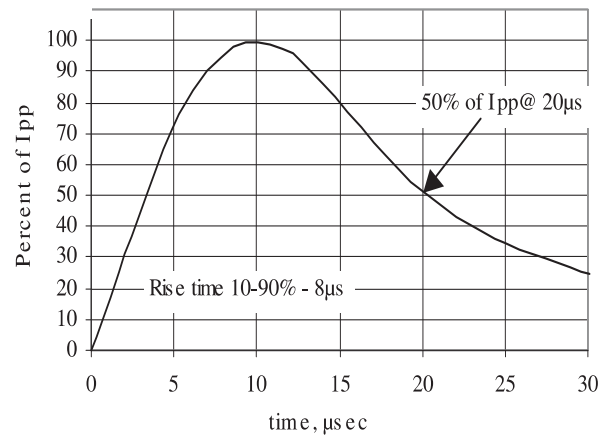
3. Capacitance at $f=1\text{MHz}$, $V_R=0\text{V}$, $T_A=25^\circ\text{C}$

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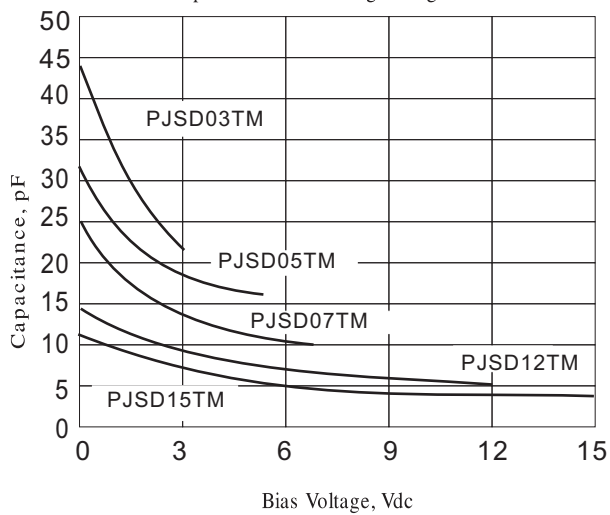
Clamping voltage vs Ipp8/20μs Surge



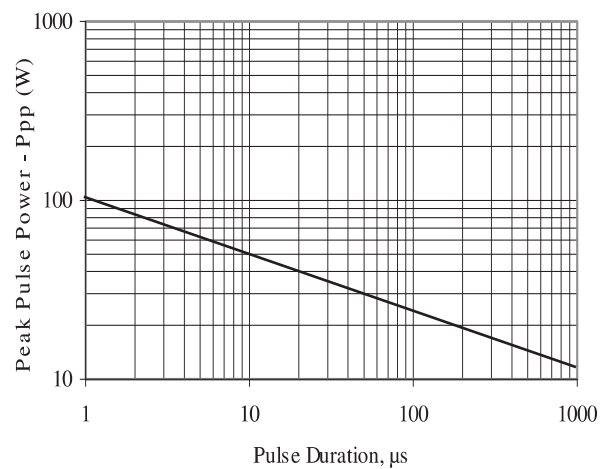
Surge Pulse Waveform Definition



Capacitance vs. Biasing Voltage @1MHz



Non-Repetitive Peak Pulse Power vs Pulse Time

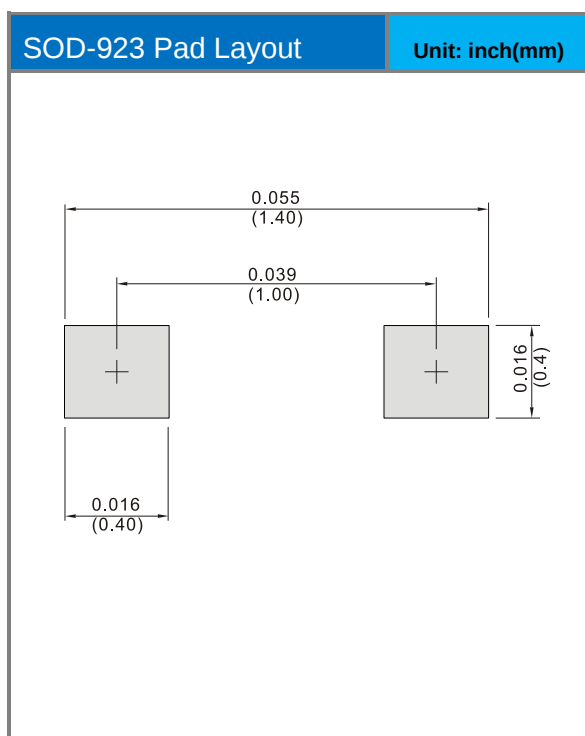


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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PJSDxxTM	SOD-923	8K pcs / 7" reel	See Table

Mounting Pad Layout



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