

Features

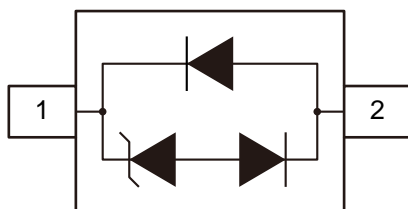
- 500W peak pulse power (8/20 μ s)
- Ultra low leakage: nA level
- Operating voltage: 3.3V
- Ultra low capacitance: 1pF typical
- Low clamping voltage
- Protects one power line or data line
- IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- IEC61000-4-5 (Lightning) 30A (8/20 μ s)
- RoHS Compliant
- AEC-Q101 qualified and PPAP capable



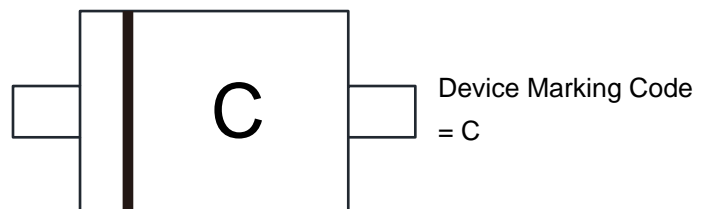
Mechanical Characteristics

- Case: Molded plastic, SOD-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020

Pin Configuration



Marking Code



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 μ s waveform)	P_{PPM}	500	W
Peak Pulse Current (tp=8/20 μ s waveform)	I_{PP}	30	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	\pm 30 \pm 30	kV
Operating Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

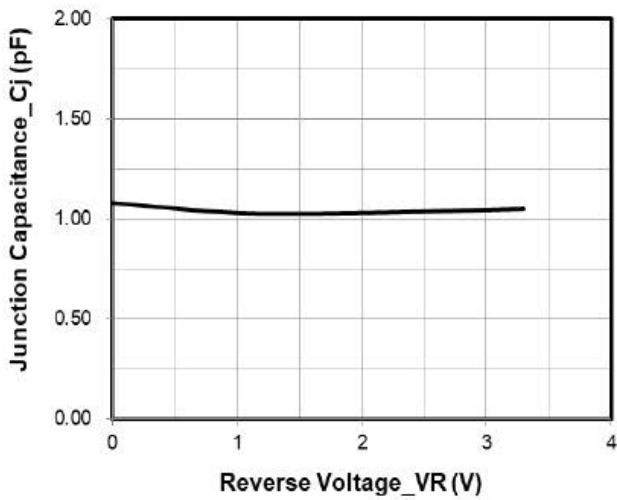


Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

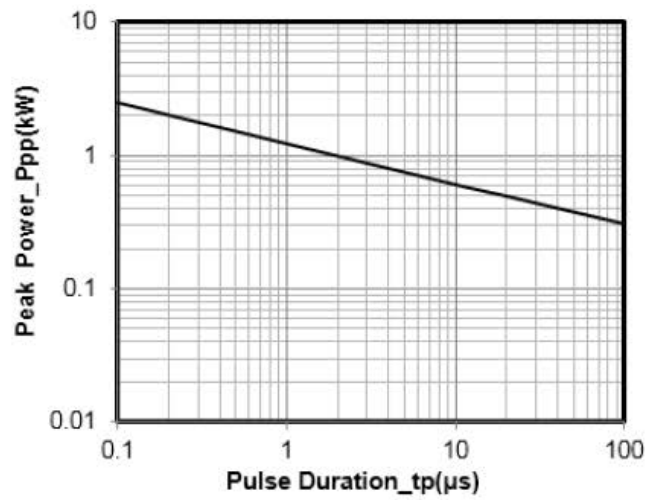
Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage		V_{RWM}			3.3	V
Breakdown Voltage	$I_T = 1\text{mA}$	V_{BR}	3.9			V
Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$	I_R			0.2	μA
Clamping Voltage	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)	V_C			7	V
Clamping Voltage	$I_{PP} = 30\text{A}$ (8 x 20 μs pulse)	V_C			16	V
Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		1		pF



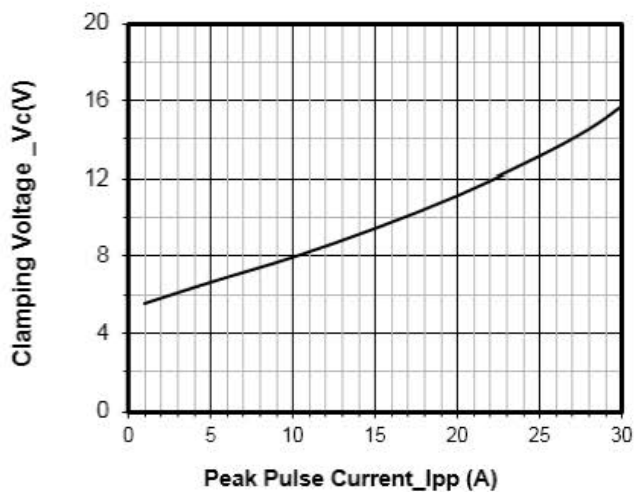
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)



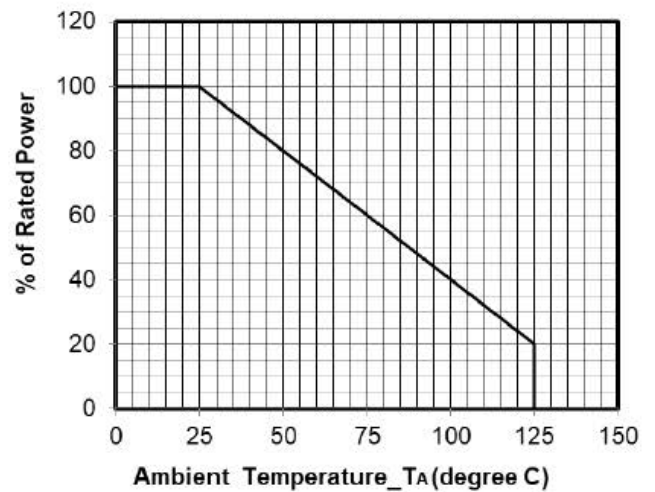
Junction Capacitance vs. Reverse Voltage



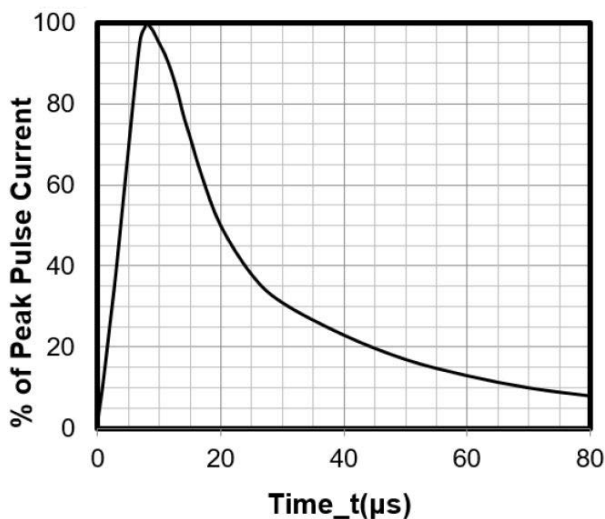
Peak Pulse Power vs. Pulse Time



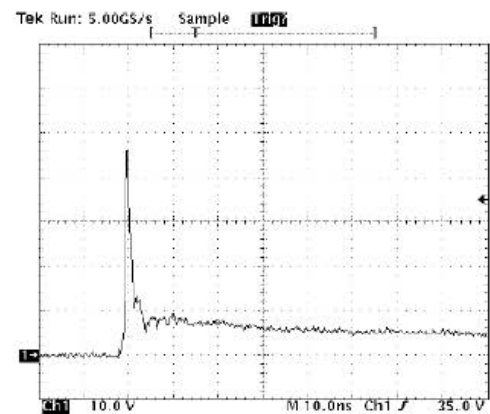
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



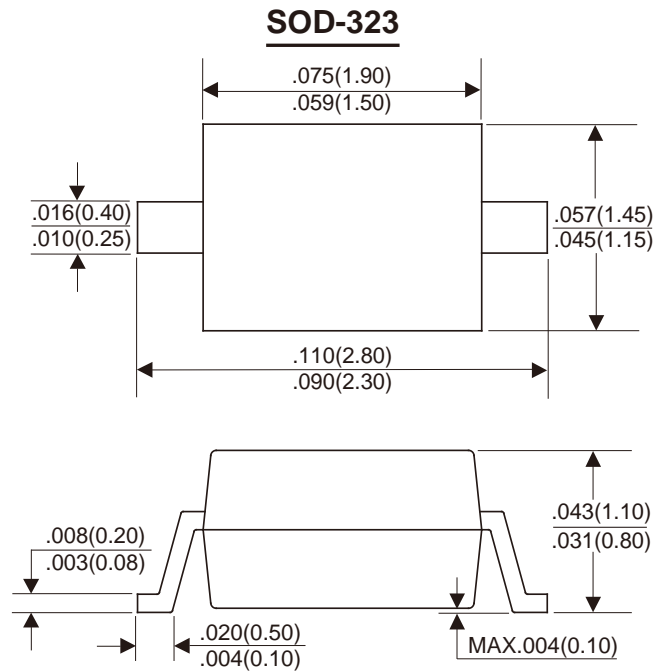
8 X 20 μs Pulse Waveform



Note: Data is taken with a 10x attenuator
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

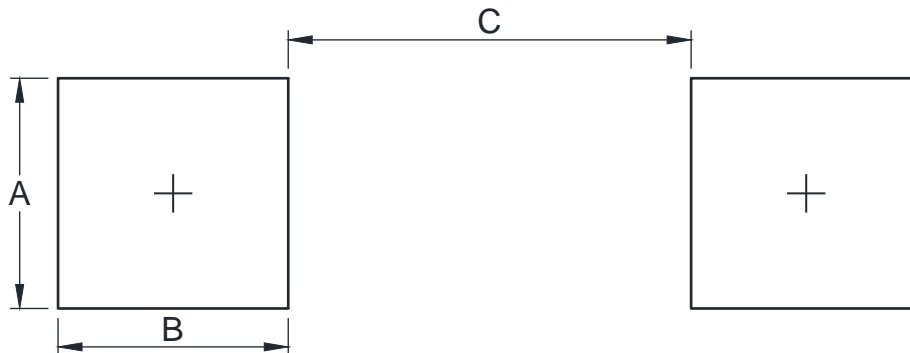


Structures and Dimensions



Dimensions in inches and (millimeters)

Recommended Soldering Pad Dimensions



Package Type	A	B	C
SOD-323	0.80	0.80	1.40

Unit: mm

Quantity

Part Number	Package	Reel Size (inch)	Reel (Kpcs)
YELSD323R30AA	SOD-323	7	3