

ESD5Z-Series -ESD5Z12V

Transient Voltage Suppressors for ESD Protection

Description

The ESD5Z Series are designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

Features

- Small Body Outline Dimensions
- Low Body Height
- Stand-off Voltage: 3.3 V – 12.0 V
- Peak Power up to 200 Watts @ 8 x 20 μ s Pulse
- Low Leakage
- Response Time is Typically < 1 ns
- RoHS compliant package

Complies with the following standards

IEC61000-4-2

Level 4 15 kV (air discharge)

8 kV(contact discharge)

MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

Mechanical Data

- Molded JEDEC SOD-523 Package
- Approximate Weight: 5 milligrams
- Lead-Free Pure-Tin Plating (Annealed)
- Solder Reflow Temperature: Pure-Tin - Sn, 100: 260-270°C
- 8mm Tape and Reel Per EIA Standard 481
- Flammability Rating UL 94V-0

Applications:

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

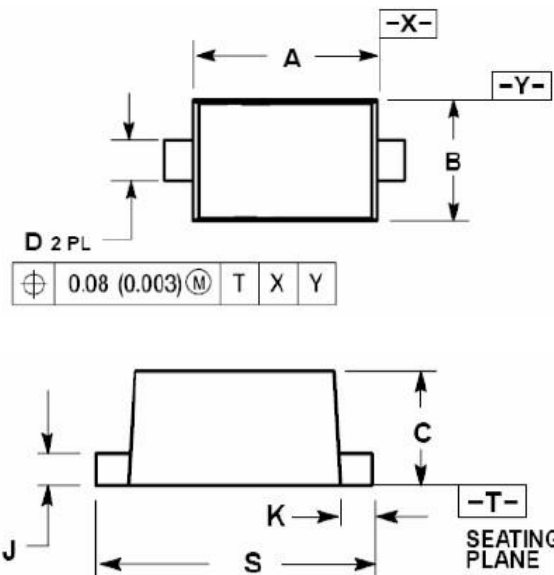
Packing & Order Information

3,000/Reel



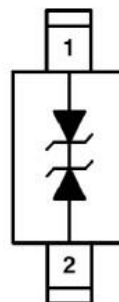
**RoHS
COMPLIANT**

SOD-523



Dim	Millimeters			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067

Graphic symbol



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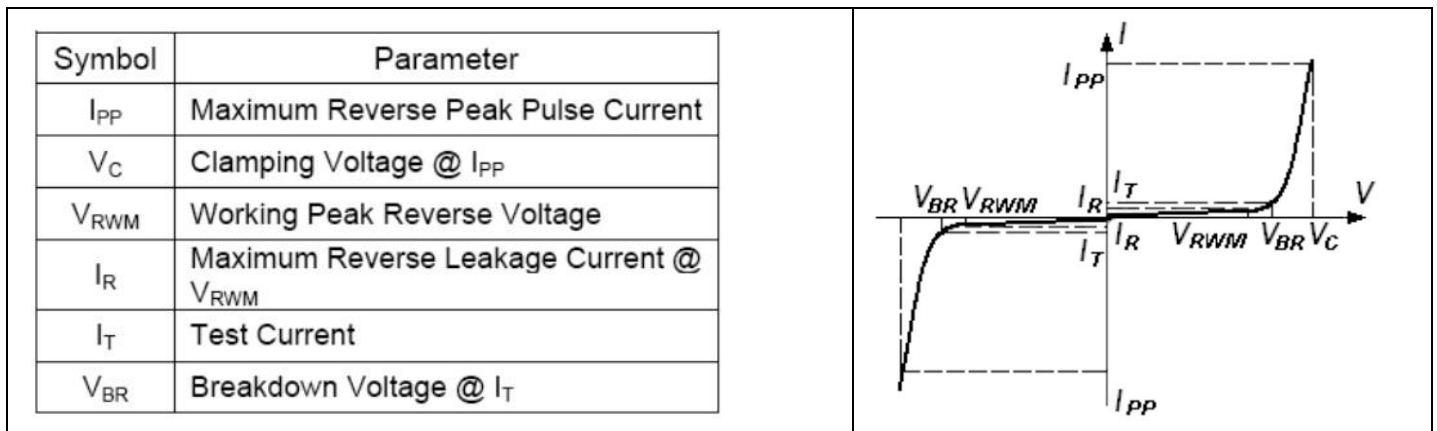
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute ratings (limiting value)

Symbol	Parameter	Value	Unit
Ppk	Peak Pulse Power (tp = 8/20μs)	200	W
TSTG	Storage Temperature Range	-55 to +150	°C
TL	Maximum lead temperature for soldering during 10s	260	°C
TJ	Maximum junction temperature	-55 to +125	°C

Electrical Characteristics

Part Numbers	VBR			IT	VRWM	VF max	IF	IR	Cj
	Min.	Typ.	Max.						
	V	V	V						mA
ESD5Z12V	13.5	14.2	15	1	12	1.25	200	1	25



Typical Characteristics

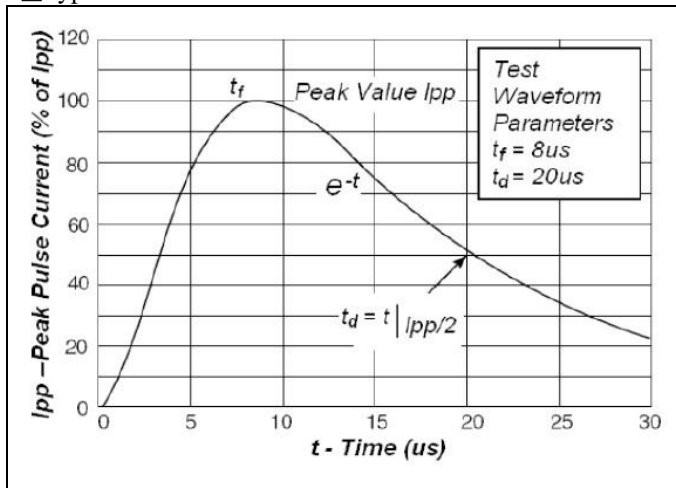


FIG.1-NON-REPETITIVE PEAK PULSE POWER VS. TIME

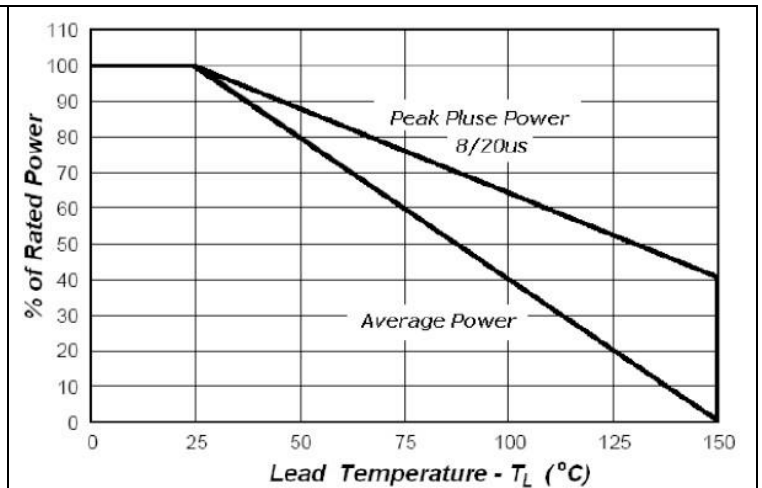


FIG.2-POWER DERATING CURVE

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