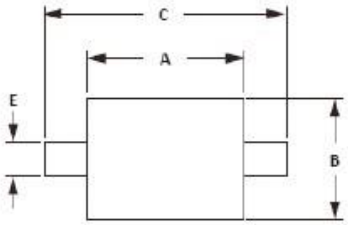
ESD3Z24V

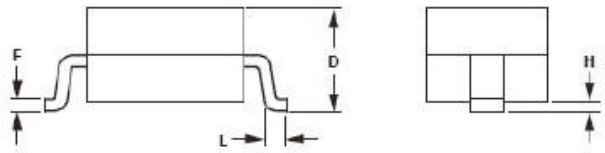
Transient Voltage Suppressors for ESD Protection

Description

The ESD3Z24V is 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.

RoHS
COMPLIANT





Features

- 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)
- Unidirectional & Bidirectional Configuration
- Protects One Power or I/O Port
- Low Clamping Voltage
- Ultra Low Capacitance: 3pF (Typical)
- RoHS compliant package
- REACH Compliant

Mechanical Data

- Molded JEDEC SOD-323 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

OUTLINE DIMENSIONS

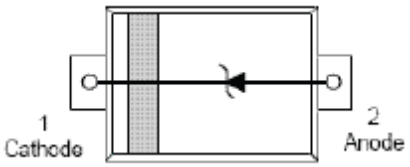
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.80	1.10	0.031	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004
L	0.20	-	0.008	-

NOTES
1. Controlling dimension: millimeters.
2. Dimensioning and tolerances per ANSI Y14.5M, 1985.
3. Dimensions are exclusive of mold flash and metal burrs.

Applications:

- Cellular Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants(PDA'S)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Pagers Peripherals

Graphic symbol



Packing & Order Information

Shipping：3,000/Reel

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

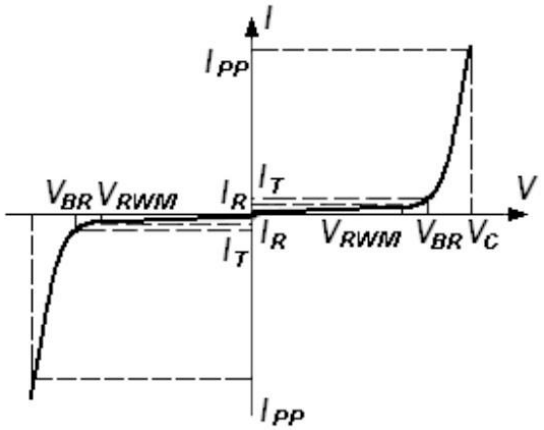
Absolute ratings (limiting value)

Symbol	Parameter	Value	Unit
Ppk	Peak Pulse Power (tp = 8/20μs)	350	W
Ipp	Maximum Peak Pulse Current (tp = 8/20μs)	24	A
TJ	Operating Temperature	-55 to +125	°C
TSTG	Storage Temperature	-55 to +150	°C
TL	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

Electrical Characteristics

Part Numbers	VBR			IT	VRWM	IR	Cj
	Min.	Typ.	Max.				TYP
	V	V	V	mA	V	uA	PF
ESD3Z24V	24.4	27.0	30.3	1	24	1	50

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T



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■Typical Device Characteristics

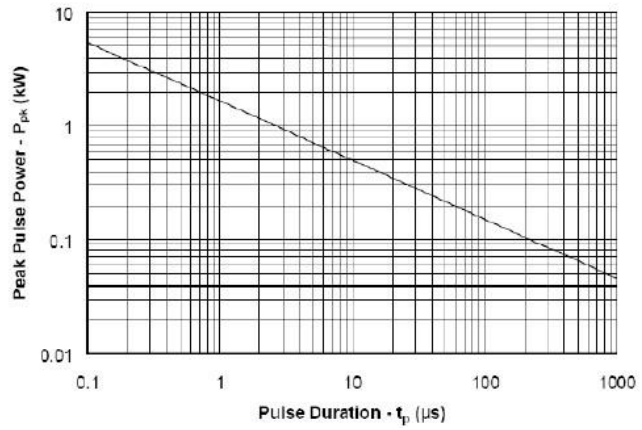

FIG.1-NON-REPETITIVE PEAK PULSE POWER VS. TIME

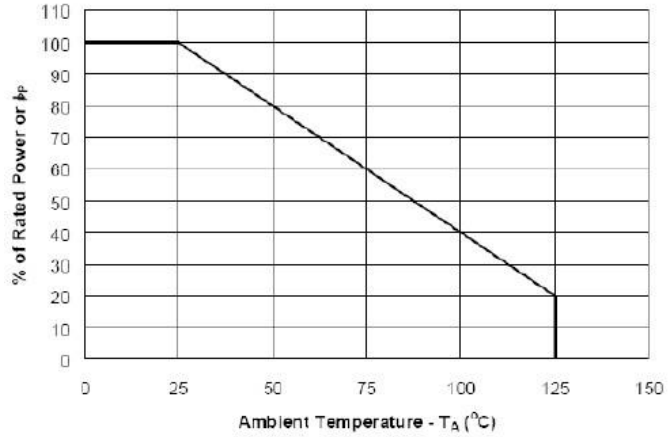

FIG.2-POWER DERATING CURVE

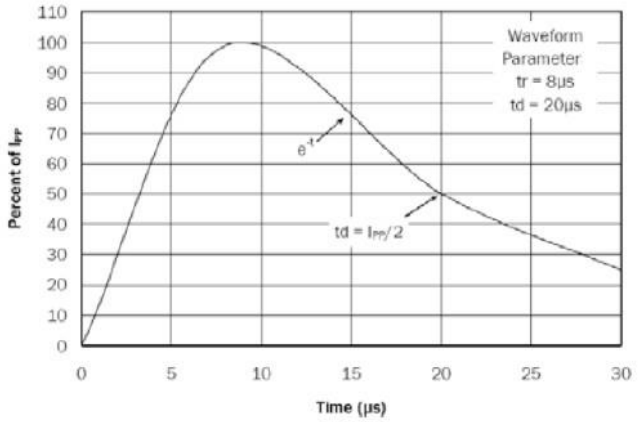

FIG.3-CLAMPING VOLTAGE VS. PEAK PULSE CURRENT

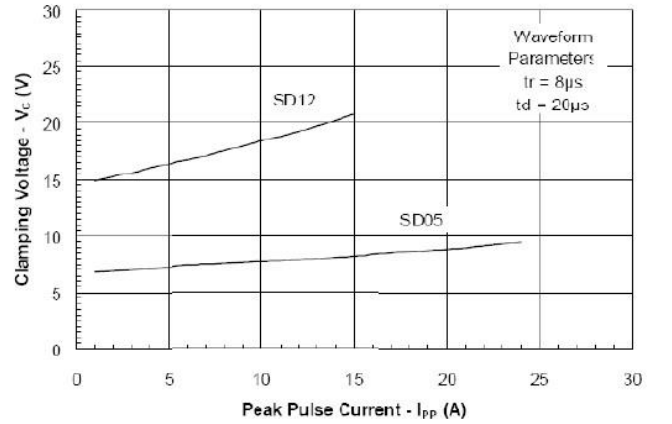

FIG.4-FORWARD VOLTAGE VS. FORWARD CURRENT

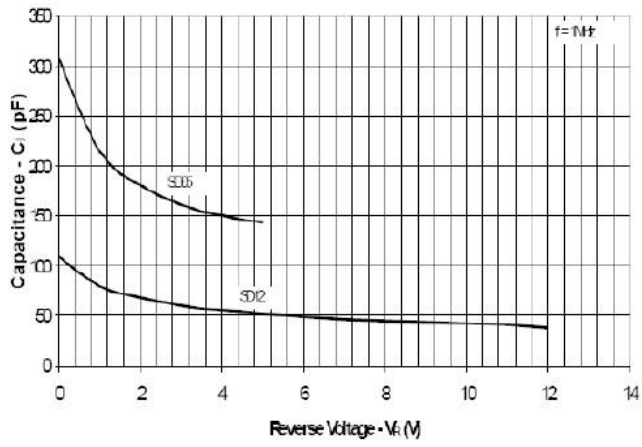

FIG.5-CAPACITANCE VS. REVERSE VOLTAGE

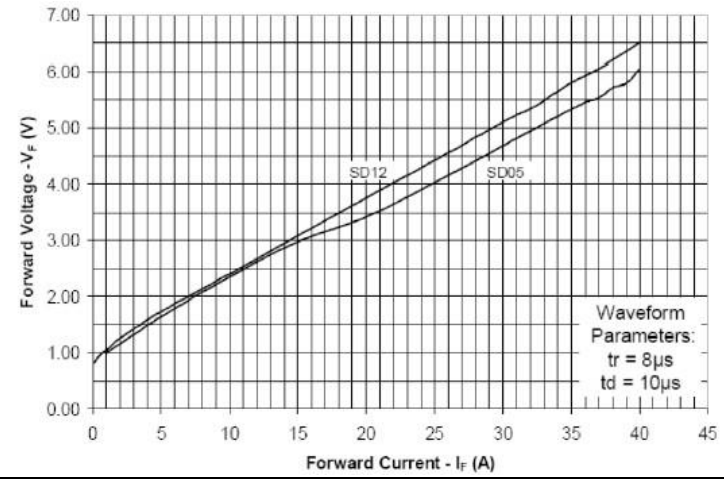

FIG.6-FORWARD VOLTAGE VS. FORWARD CURRENT

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