

Transient Voltage Suppressors for ESD Protection

The DESD5Z5.0 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.

● APPLICATIONS

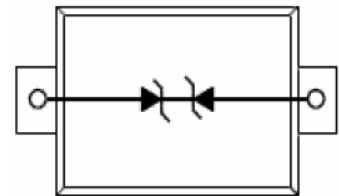
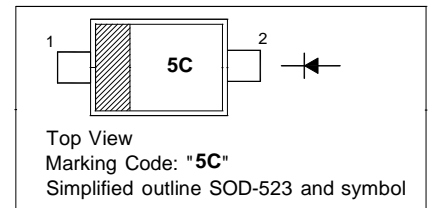
- 1) Cell phones
- 2) Portable devices
- 3) Digital cameras
- 4) Power supplies

● FEATURES

- 1) Small Body Outline Dimensions
- 2) Low Body Height
- 3) Peak Power up to 200 Watts @ 8 x 20 μ s Pulse
- 4) Low Leakage
- 5) Response Time is Typically < 1 ns
- 6) ESD Rating of Class 3 (> 16 kV) per Human Body Model
- 7) IEC61000-4-2 Level 4 ESD Protection
- 8) IEC61000-4-4 Level 4 EFT Protection
- 9) We declare that the material of product compliant with RoHS requirements and Halogen Free.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



● DEVICE MARKING AND RESISTOR VALUES

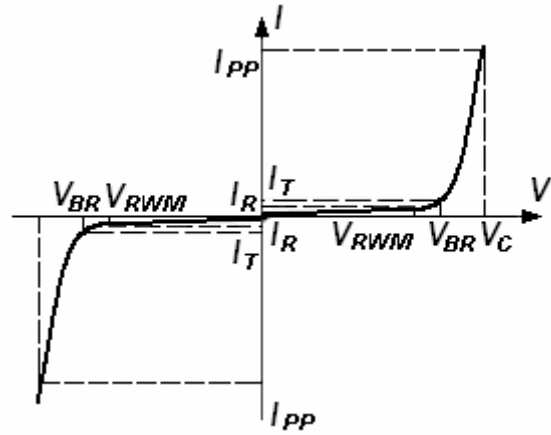
Device	Marking	Shipping
DESD5Z5.0	5C	3000/Tape&Reel
DESD5Z5.0	5C	8000/Tape&Reel

● ABSOLUTE RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
IEC 61000-4-2 (ESD)	Contact	± 8	kV
	Air	± 15	
IEC 61000 - 4 - 4 (EFT)		40	A
ESD Voltage(Per Human Body Model)		16	kV
Peak Pulse Power (tp = 8/20 μ s)	PPP	200	W
Maximum Junction Temperature	TJ	150	°C
Storage temperature	Tstg	-55 ~ +155	°C
Operating Temperature Range	TOP	-40 ~ +125	°C
Lead Solder Temperature - Maximum (10 Second Duration)	TL	260	°C

Electrical Parameter

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



● ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Device	V_{RWM} (V)	I_R (u A) @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)		I_T	V_C (V) @ $I_{pp} = 5$ A	V_C (V) @ Max I_{pp}	I_{PP} (A)	PPK (W)	C (pF)
	Max	Max	Min	Max	mA	Max	Max	Max	Max	Typ
DESD5Z5.0	5	1	5.6	7.8	1	11.6	18.6	9.4	174	25

1. V_{BR} is measured with a pluse test current I_T at an ambient temperature of 25°C.

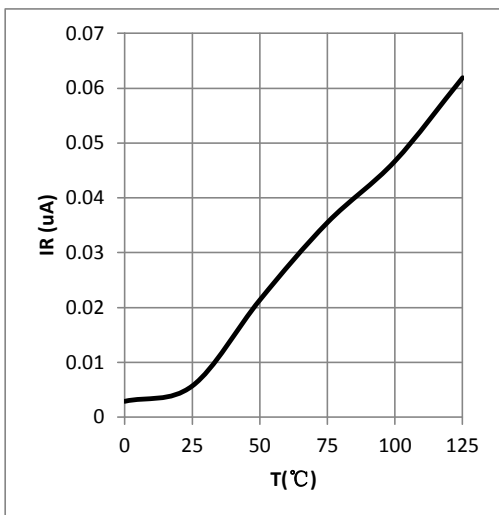


Fig 1. Reverse character

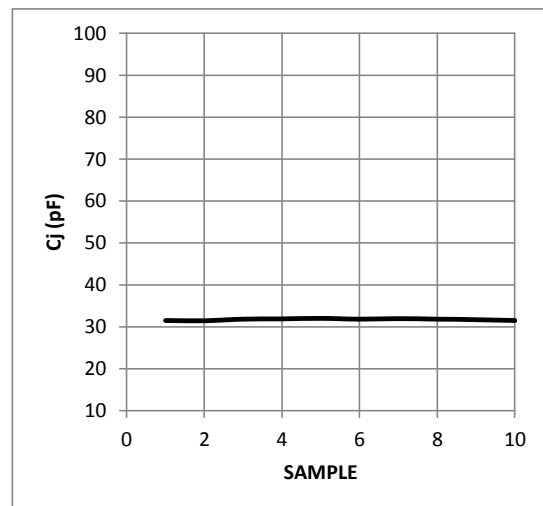


Fig 2. Capacitance character



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SOD-523

DESD5Z5.0

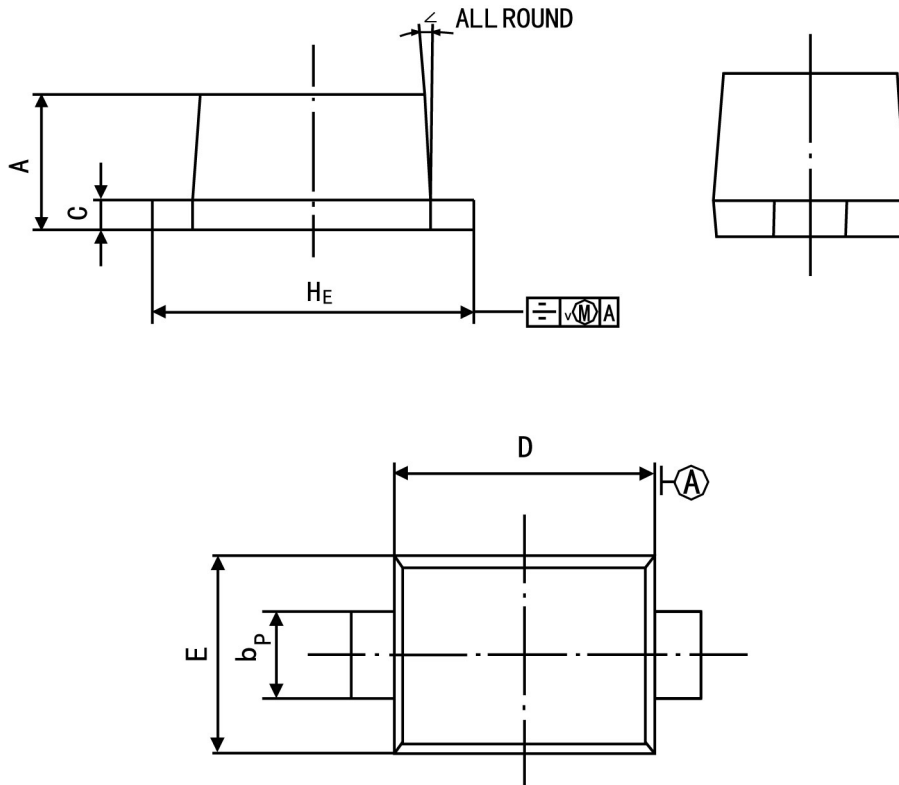


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
bp	0.30	0.40
C	0.100	0.14
D	1.15	1.25
E	0.75	0.85
HE	1.50	1.70
V	—	0.10
∠	—	5°