

Transient Voltage Suppressors for ESD Protection

The LESD5Z5.0CT1G 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.

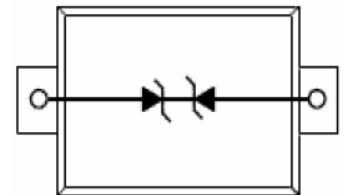
● APPLICATIONS

- 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 compliance with RoHS requirements.

LESD5Z5.0CT1G



● DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LESD5Z5.0CT1G	5C	3000/Tape&Reel
LESD5Z5.0CT5G	5C	8000/Tape&Reel

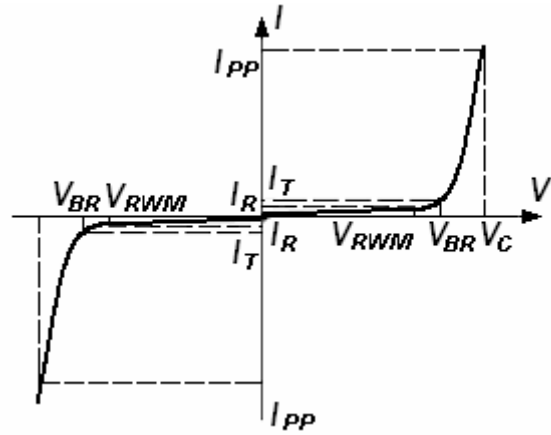
● ABSOLUTE RATINGS(Ta = 25°C)

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

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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
LESD5Z5.0CT1G	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.

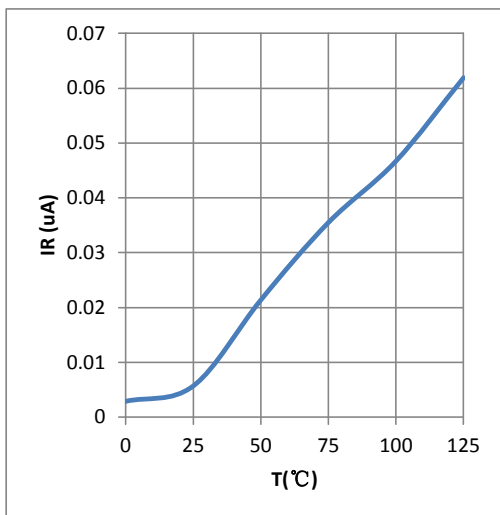


Fig 1. Reverse character

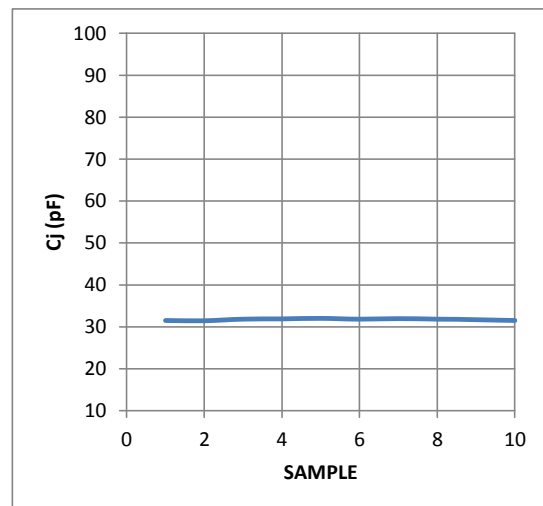
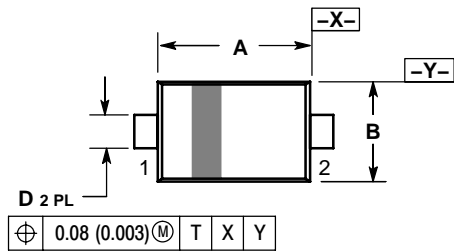


Fig 2. Capacitance character

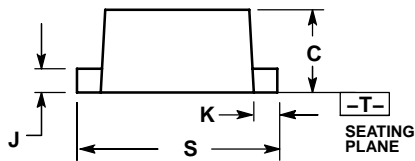
LESD5Z5.0CT1G

SOD-523



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: MILLIMETER.
 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

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



SOLDERING FOOTPRINT*

