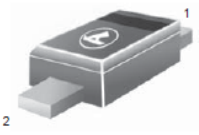
Transient Voltage Suppressors for ESD Protection

LESD5Z5.0CT1G

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.



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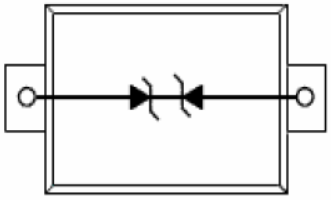

●APPLICATIONS

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 _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.

●DEVICE MARKING AND RESISTOR VALUES

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

●ABSOLUTE RATINGS(Ta = 25℃)

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 = 8/20μs)	P_{PP}	200	W
Maximum Junction Temperature	T_J	150	℃
Storage temperature	Tstg	−55～+155	℃
Operating Temperature Range	T_{OP}	−40～+125	℃
Lead Solder Temperature − Maximum (10 Second Duration)	T_L	260	℃

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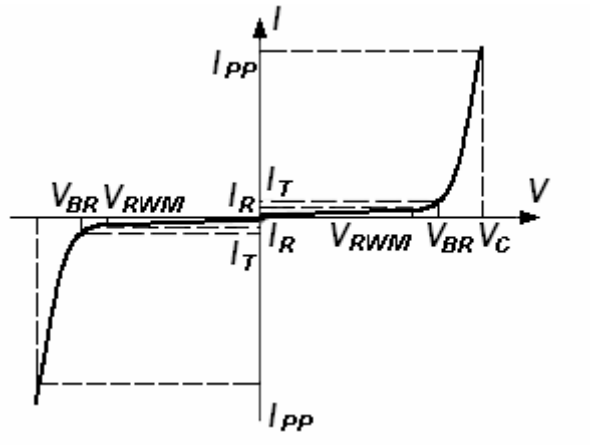
Electrical Parameter

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℃)

Device	VRWM (V)	IR (u A) @VRWM	VBR (V) @ IT (Note 1)		IT	VC (V) @Ipp = 5 A	VC (V) @Max Ipp	IPP(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. VBR is measured with a pluse test current IT at an ambient temperature of 25℃.

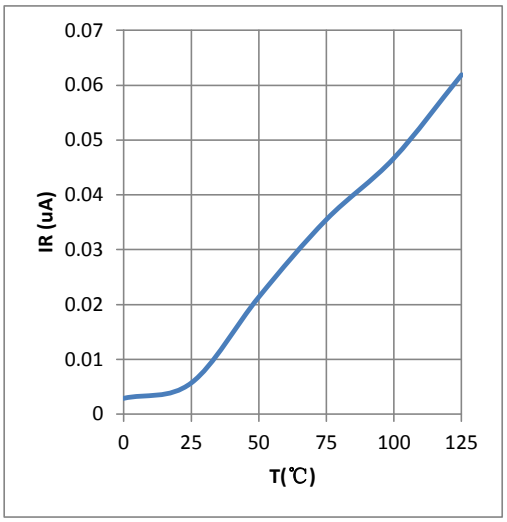


Fig 1. Reverese character

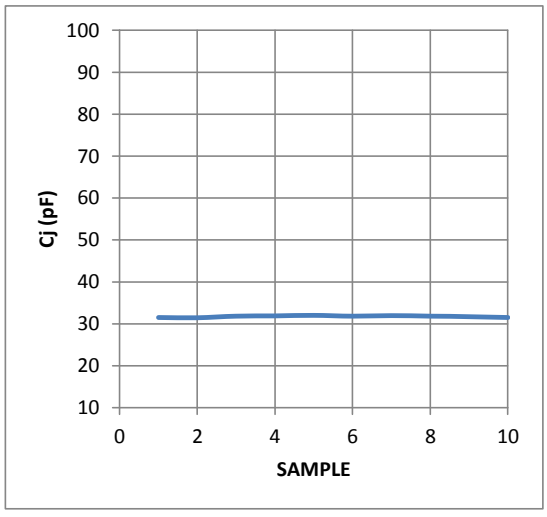


Fig 2. Capacitance character

LESD5Z5.0CT1G

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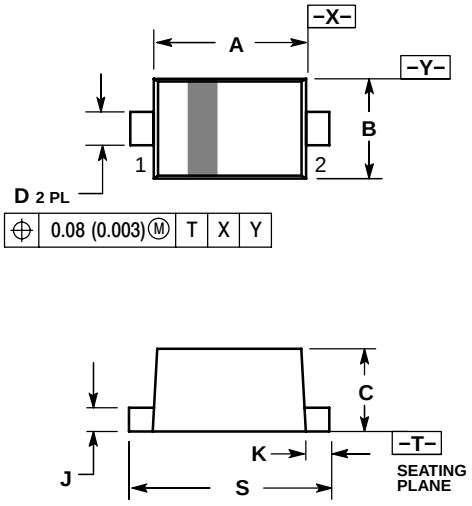

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS			INCHES		
DIM	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*