

Dual Transient Voltage Suppressors Array for ESD Protection

The LGSOT05CLT1G is a dual monolithic voltage suppressor designed to protect components which are connected to data and transmission lines against ESD . It clamps the voltage just above the logic level supply for positive transients , and to a diode drop below ground for negative transients . It can also work as bidirectional suppressor by connecting only pin1 and 2.

●APPLICATIONS

- 1)Computers、 Printers
- 2)Communication systems

●FEATURES

- 1)2 Unidirectional Transil functions
- 2)Low leakage current: $I_R \max < 20 \mu A$ at V_{RM}
- 3)300W peak pulse power(8/20 μs)
- 4)Transient protection for data lines as per
IEC61000-4-2(ESD) 15kV(air) 8kV(contact)
IEC61000-4-5(Lightning) see IPPM below
- 5)We declare that the material of product compliant with
RoHS requirements and Halogen Free.

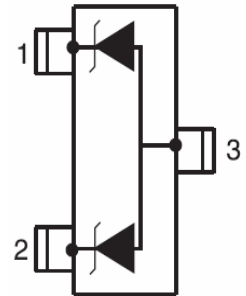
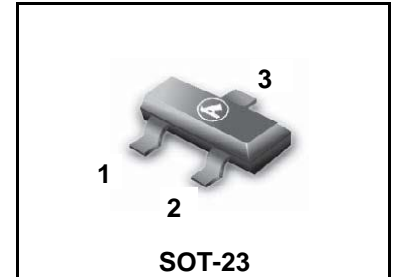
●DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LGSOT05CLT1G	05C	3000/Tape&Reel
LGSOT05CLT3G	05C	10000/Tape&Reel

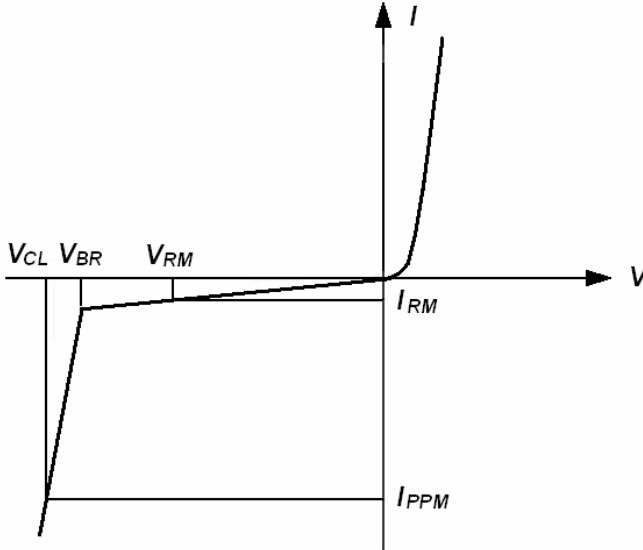
●ABSOLUTE RATINGS($T_a = 25^\circ C$)

Parameter	Symbol	Limits	Unit
IEC 61000-4-2 (ESD)	Contact	± 8	kV
	Air	± 15	
Peak Pulse Power ($t_p = 8/20\mu s$)	PPP	300	W
Maximum Junction Temperature	T_J	150	$^\circ C$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ C$
Operating Temperature Range	T_{OP}	$-40 \sim +125$	$^\circ C$
Lead Solder Temperature - Maximum (10 Second Duration)	TL	260	$^\circ C$

LGSOT05CLT1G



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Electrical Parameter

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{CL}	Clamping voltage
I_{RM}	Leakage current
I_{PPM}	Peak pulse current

● 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) @ $I_{pp} = 1 A$	V_C (V) @ $I_{pp} = 5A$	$I_{PP}(A)$ @ $t_p=8/20\mu s$	C (pF)
	Max	Max	Min	mA	Max	Max	Max	Max
LGSOT05CLT1G	5	5	6	1	9.8	12.5	17	220

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

LGSOT05CLT1G

ELRCTIRCAL CHARACTERISTICS CURVES

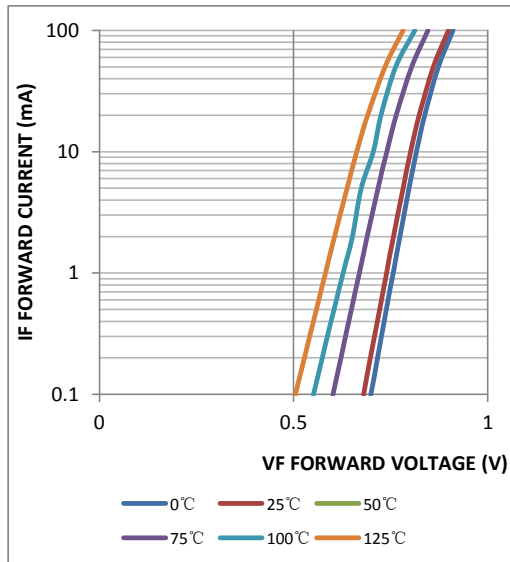


Fig 1. Forward character

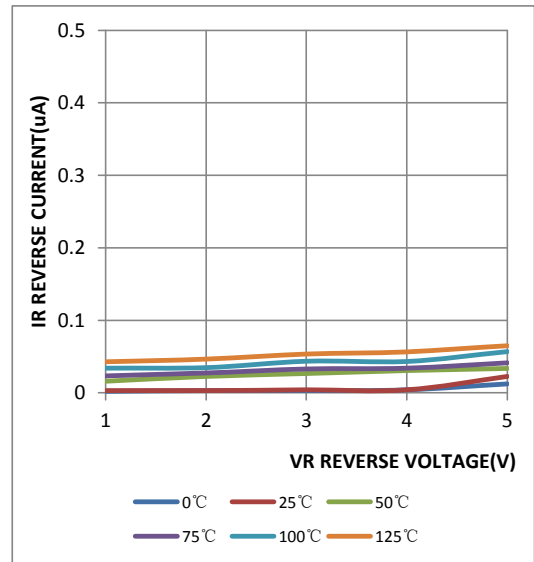


Fig 2. Reverse character

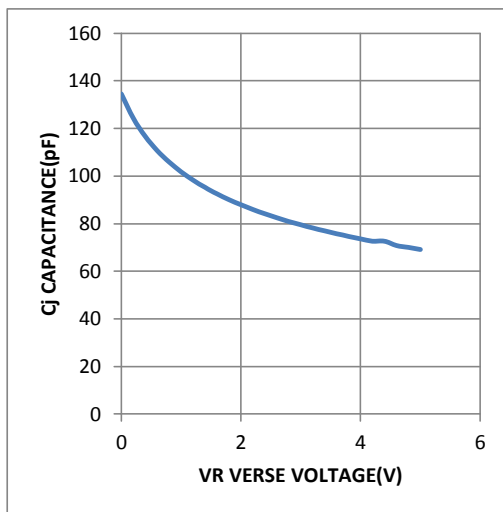


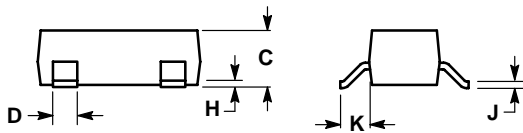
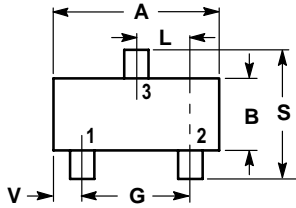
Fig 3. Capacitance character

LGSOT05CLT1G

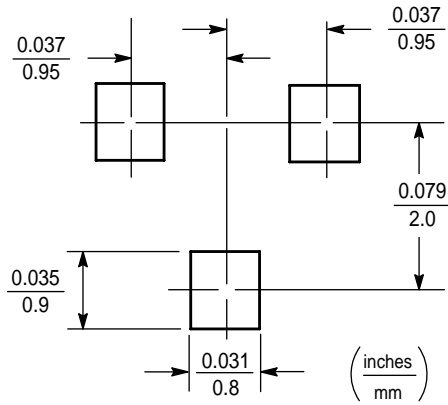
SOT-23

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60



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