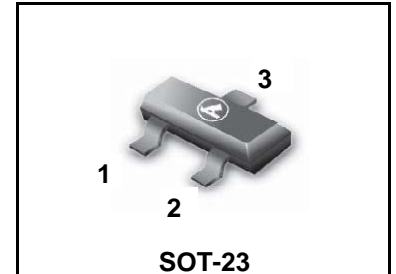


Dual Transient Voltage Suppressors Array for ESD Protection

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.

LGSOT05CLT1G

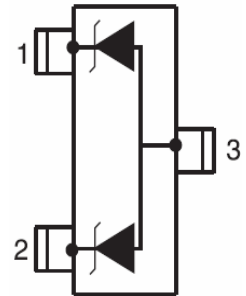


●APPLICATIONS

- 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.



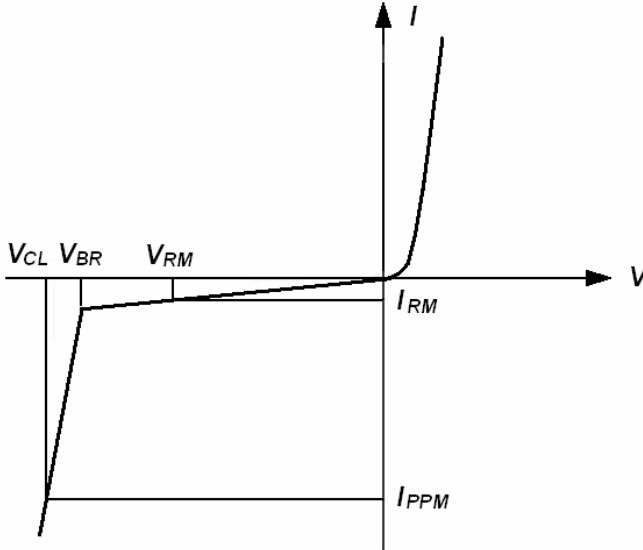
●DEVICE MARKING AND RESISTOR VALUES

| 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



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) @ $I_{pp} = 5$ A | 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

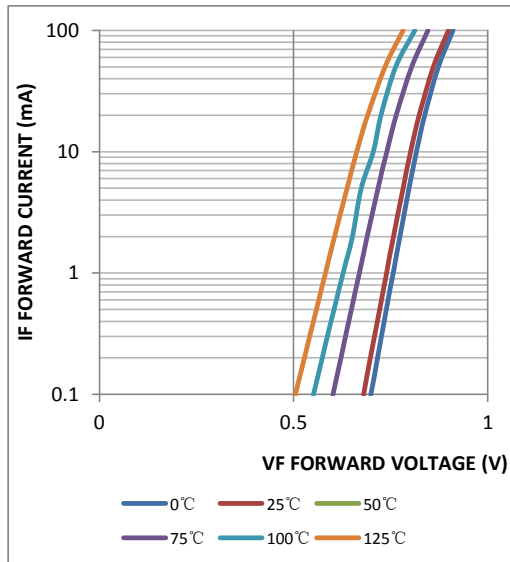


Fig 1. Forward character

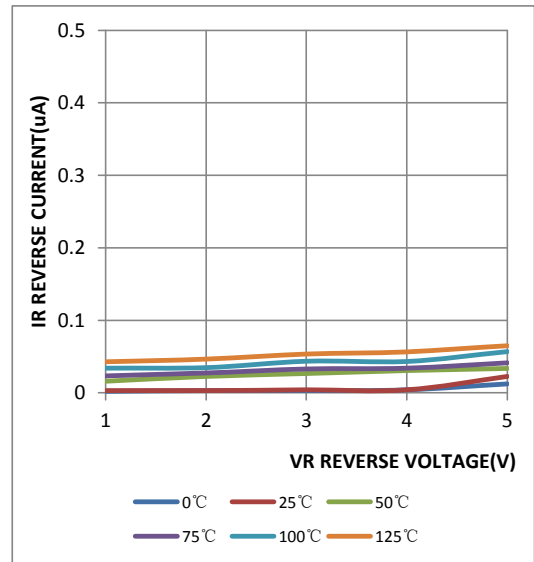


Fig 2. Reverse character

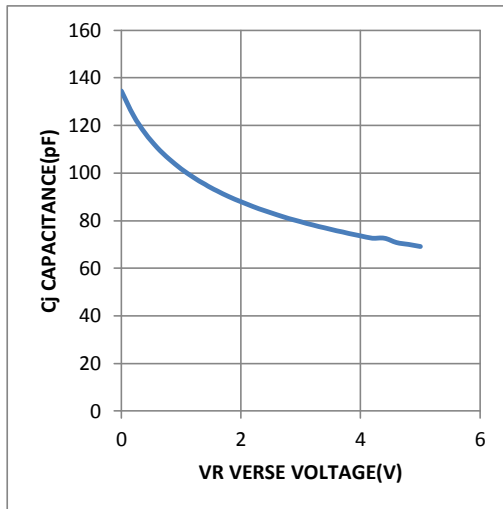


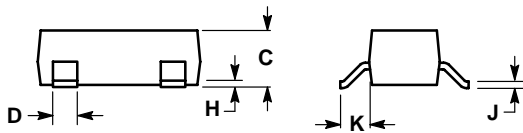
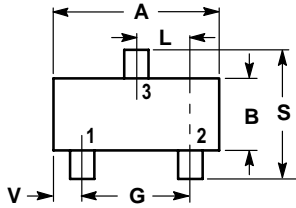
Fig 3. Capacitance character

LGSOT05CLT1G

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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 |

