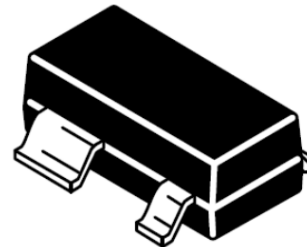


Features

- Ultra low leakage: nA level
- Operating voltage: 12V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 8\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 12A (8/20 μs)
- RoHS Compliant

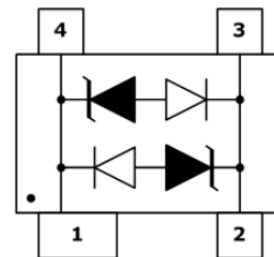
Dimensions SOT-143



Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Pin Configuration



Mechanical Characteristics

- Package: SOT-143
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7inch

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20 μs) | P _{pp} | 400 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ± 15 | Kv |
| ESD per IEC 61000-4-2 (Contact) | | ± 8 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number | Device Marking | V _{RWM} (V) | V _{BR} (V) | I _T (mA) | V _C @1A | V _C | | I _R μA (Max) | C (Pf) (Typ.) |
|-------------|----------------|----------------------|---------------------|---------------------|--------------------|----------------|------|-------------------------|---------------|
| | | | | | | (Max) | (@A) | | |
| LC1201CDT4 | DTA | 12 | 13.3 | 1 | 19 | 34 | 12 | 1 | 3 |

Characteristic Curves

Fig1. 8/20μs Pulse Waveform



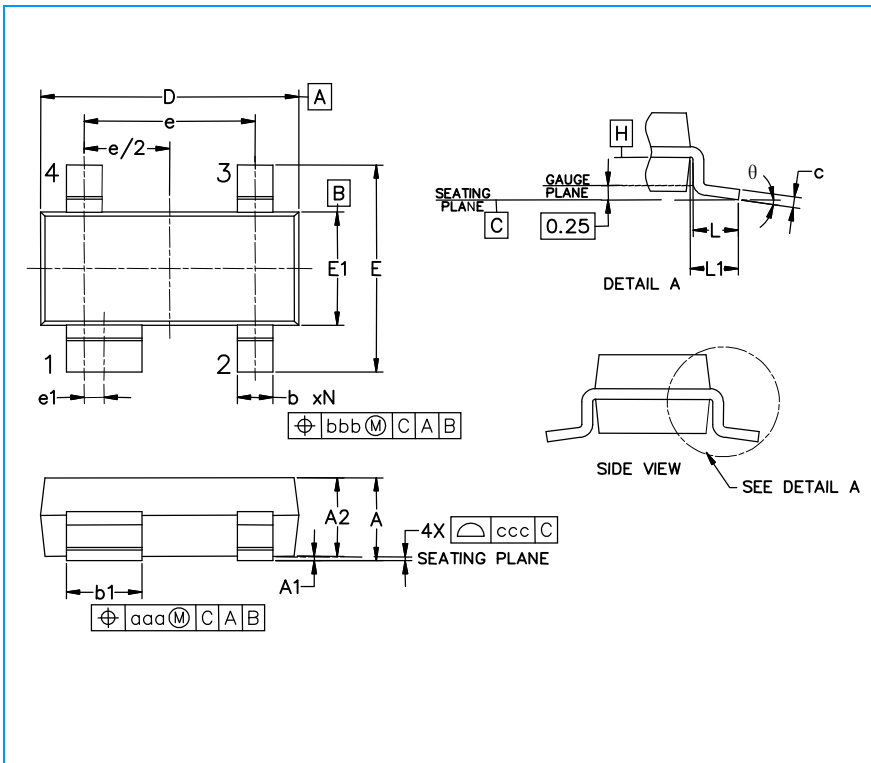
Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



Fig3. Power Derating Curve

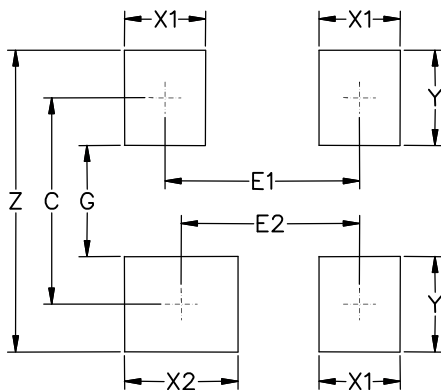


SOT-143 Package Outline & Dimensions



| Symbol | Inches | | | Millimeters | | |
|--------|---------|-------|-------|-------------|------|------|
| | Min. | Nom. | Max. | Min. | Nom. | Max. |
| A | 0.031 | - | 0.048 | 0.80 | - | 1.22 |
| A1 | 0.000 | - | 0.008 | 0.013 | - | 0.15 |
| A2 | 0.020 | 0.035 | 0.042 | 0.75 | 0.90 | 1.07 |
| b | 0.011 | - | 0.020 | 0.30 | - | 0.51 |
| b1 | 0.029 | - | 0.037 | 0.76 | - | 0.94 |
| c | 0.003 | - | 0.008 | 0.08 | - | 0.20 |
| D | 0.110 | 0.114 | 0.120 | 2.80 | 2.90 | 3.04 |
| E | 0.082 | 0.093 | 0.104 | 2.10 | 2.37 | 2.64 |
| E1 | 0.047 | 0.051 | 0.055 | 1.20 | 1.30 | 1.40 |
| e | 0.075 | | | 1.92 BSC | | |
| e1 | 0.008 | | | 0.20 BSC | | |
| L | 0.015 | 0.020 | 0.024 | 0.40 | 0.50 | 0.60 |
| L1 | (0.021) | | | (0.54) | | |
| N | 4 | | | 4 | | |
| θ | 0° | - | 8° | 0° | - | 8° |
| aaa | 0.006 | | | 0.15 | | |
| bbb | 0.008 | | | 0.20 | | |
| ccc | 0.004 | | | 0.10 | | |

Soldering Footprint



| Symbol | Inches | Millimeters |
|--------|---------|-------------|
| C | (0.087) | (2.20) |
| E1 | 0.076 | 1.92 |
| E2 | 0.068 | 1.72 |
| G | 0.031 | 0.80 |
| X1 | 0.039 | 1.00 |
| X2 | 0.047 | 1.20 |
| Y | 0.055 | 1.40 |
| Z | 0.141 | 3.60 |