

Features

- Ultra low leakage: nA level
- Operating voltage: 36V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS Compliant
- AEC-Q101 qualified

Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds
- Portable Instrumentation
- Set Top Box
- Industrial Controls
- Server and Desktop PC
- CAN/CAN-FD

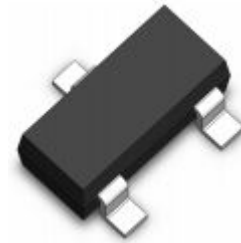
Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7inch
- Device Marking: 36CL

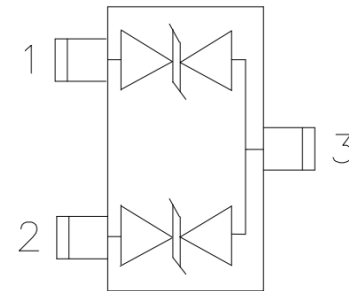
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20 μs) | Ppp | 250 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ± 30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ± 30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

Dimensions SOT-23



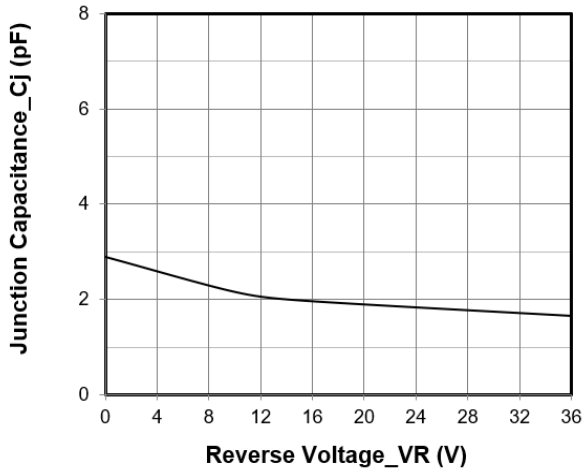
Pin Configuration



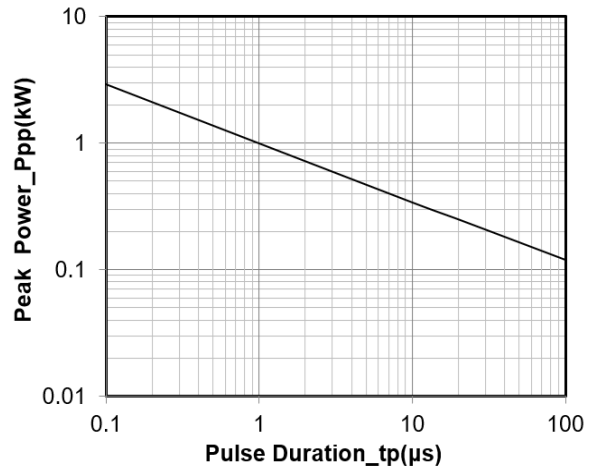
Electrical Characteristics (TA=25°C unless otherwise specified)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|-----------|--|-----|-----|-----|---------------|
| Reverse Working Voltage | V_{RWM} | | | | 36 | V |
| Breakdown Voltage | V_{BR} | $I_T = 1\text{mA}$ | 38 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 36\text{V}$ | | | 0.5 | μA |
| Clamping Voltage | V_C | $I_{PP} = 1\text{A}$ (8 x 20 μs pulse) | | 40 | 45 | V |
| Clamping Voltage | V_C | $I_{PP} = 5\text{A}$ (8 x 20 μs pulse) | | 45 | 50 | V |
| Junction Capacitance | C_J | $V_R = 0\text{V}$, $f = 1\text{MHz}$ Pin 1 to Pin 3 or Pin 2 to Pin 3 | | 3 | | pF |
| Junction Capacitance | C_J | $V_R = 0\text{V}$, $f = 1\text{MHz}$ Pin 1 to Pin 2 | | 2.5 | | pF |

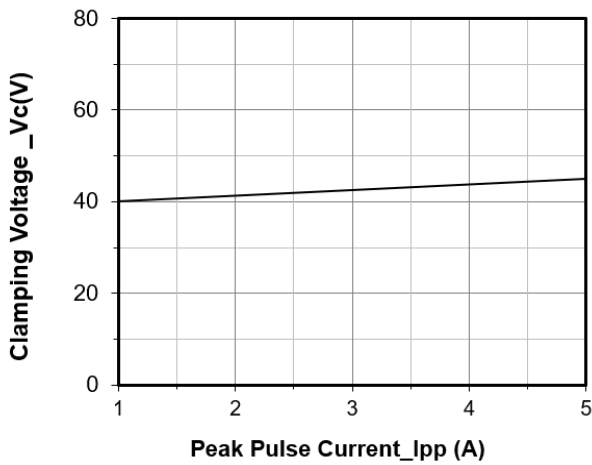
Typical Performance Characteristics(TA=25°C unless otherwise specified)



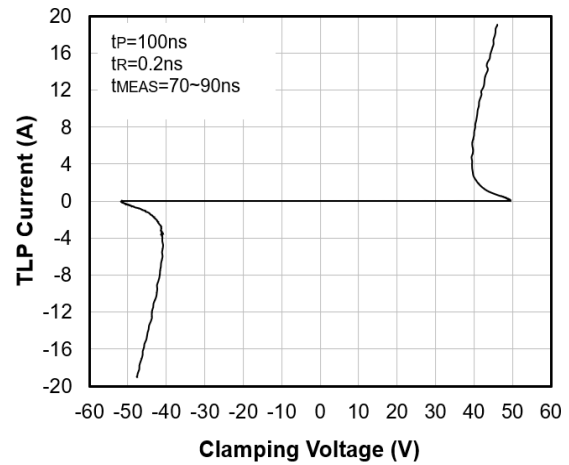
Junction Capacitance vs. Reverse Voltage



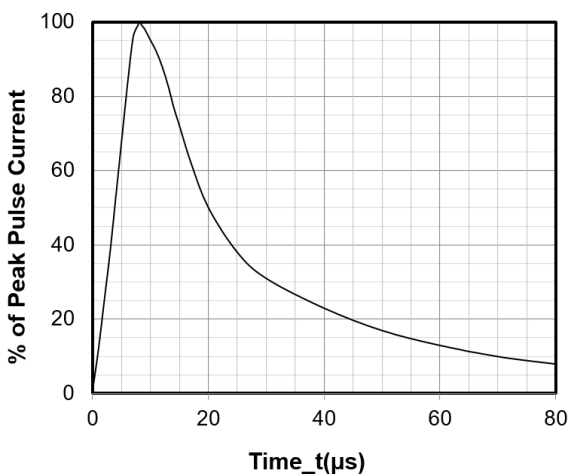
Peak Pulse Power vs. Pulse Time



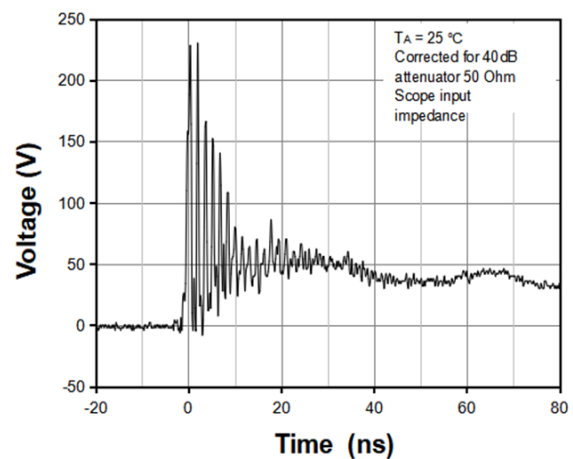
Clamping Voltage vs. Peak Pulse Current (tp = 8/20μs)



TLP Measurement



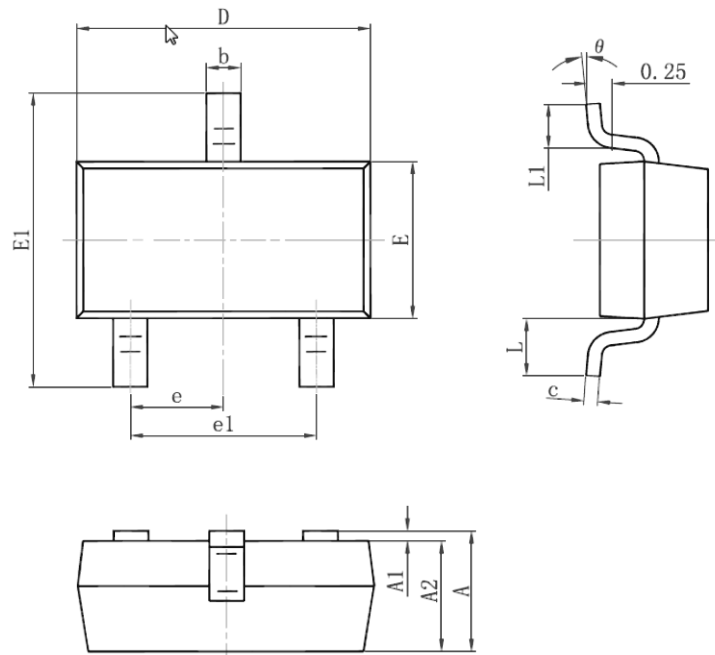
8 X 20μs Pulse Waveform



ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

SOT-23 Package Outline Drawing



| SYM | DIMENSIONS | | | | | |
|-----|-------------|-----|------|----------|-----|-------|
| | MILLIMETERS | | | INCHES | | |
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.90 | -- | 1.15 | 0.035 | -- | 0.045 |
| A1 | 0.00 | -- | 0.10 | 0.000 | -- | 0.004 |
| A2 | 0.90 | -- | 1.05 | 0.035 | -- | 0.041 |
| b | 0.30 | -- | 0.50 | 0.012 | -- | 0.020 |
| c | 0.08 | -- | 0.15 | 0.003 | -- | 0.006 |
| D | 2.80 | -- | 3.00 | 0.110 | -- | 0.118 |
| E | 1.20 | -- | 1.40 | 0.047 | -- | 0.055 |
| E1 | 2.25 | -- | 2.55 | 0.089 | -- | 0.100 |
| e | 0.95TYP | | | 0.037TYP | | |
| e1 | 1.80 | -- | 2.00 | 0.071 | -- | 0.079 |
| L | 0.55REF | | | 0.022REF | | |
| L1 | 0.30 | -- | 0.50 | 0.012 | -- | 0.020 |
| θ | 0° | -- | 8° | 0° | -- | 8° |

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