

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

Product Specification

| | | |
|--------------|-------------|-----------------|
| ▶ Domestic | Part Number | RCLAMP0522P.TCT |
| ▶ Overseas | Part Number | RCLAMP0522P.TCT |
| ▶ Equivalent | Part Number | RCLAMP0522P.TCT |

EV is the abbreviation of name EVVO

Low Capacitance TVS Diode Array

Features

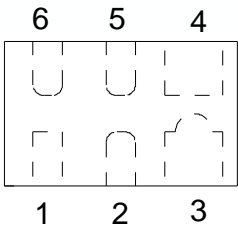
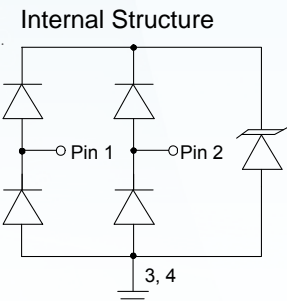
- Ultra Low Capacitance 0.5pF typical
- Low operating Voltage: 5.0 V
- Low clamping voltage
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5(Lightning)5A(5/50ns)

Applications

- USB 2.0
- HDMI 1.3
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Portable Electronics
- Notebooks

Mechanical Characteristics

- JEDEC SLP1610P4 package
- Molding compound flammability rating: UL 94V-0



| Pin | Identification |
|-------|--|
| 1 - 2 | Input Lines |
| 5 - 6 | Output Lines (No Internal Connection) |
| 3 - 4 | Ground |

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

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20μs) | P _{pk} | 150 | W |
| Peak Pulse Current (8/20μs) | I _{PP} | 5 | A |
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | V _{ESD} | ±25 ±20 | kV |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

Low Capacitance TVS Diode Array

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|---------------------------|--------|-----|-----|-----|---------------|--|
| DP, DM, USB ID TVS | | | | | | |
| Reverse Working Voltage | VRWM | | | 5.0 | V | |
| Breakdown Voltage | VBR | 6.0 | | | V | $I_T = 1\text{mA}$ |
| Reverse Leakage Current | I_R | | | 0.5 | μA | $VRWM = 5.0\text{V}$ |
| Clamping Voltage | VC | | | 15 | V | $I_{PP} = 1\text{A}$ (8 x 20 μs pulse), any I/O pin to ground |
| Clamping Voltage | VC | | | 25 | V | $I_{PP} = 5\text{A}$ (8 x 20 μs pulse), any I/O pin to ground |
| Junction Capacitance | CJ | | 0.5 | 1.0 | pF | $VR = 0\text{V}$, $f = 1\text{MHz}$, any I/O pin to ground |

Low Capacitance TVS Diode Array

Typical Characteristics

Fig1. 8/20μs Pulse Waveform

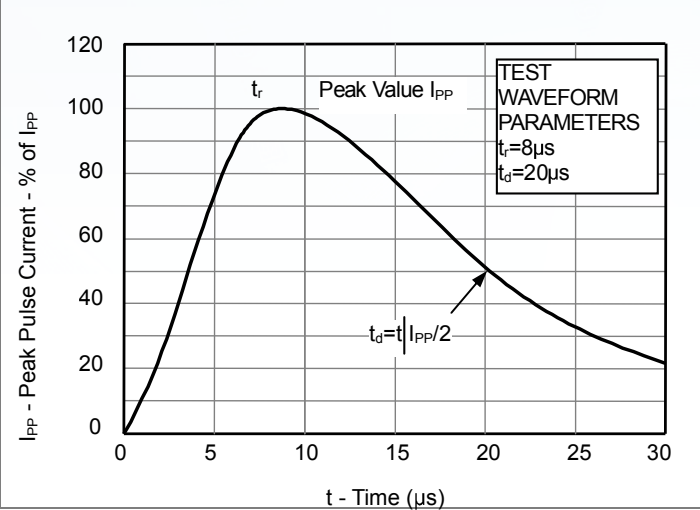


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

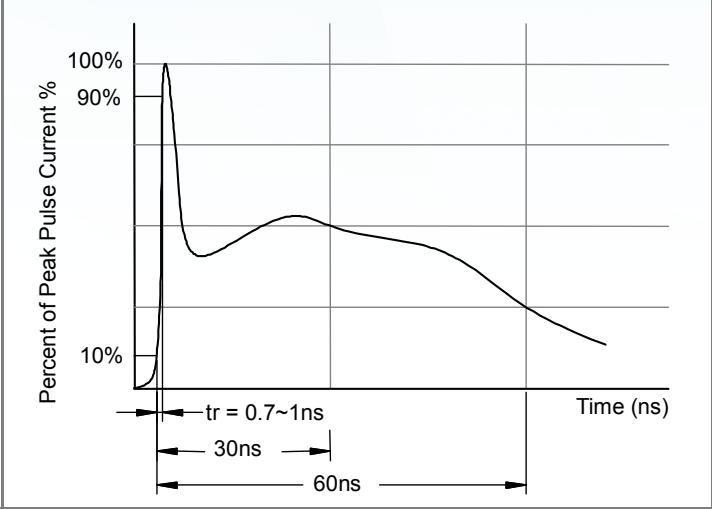
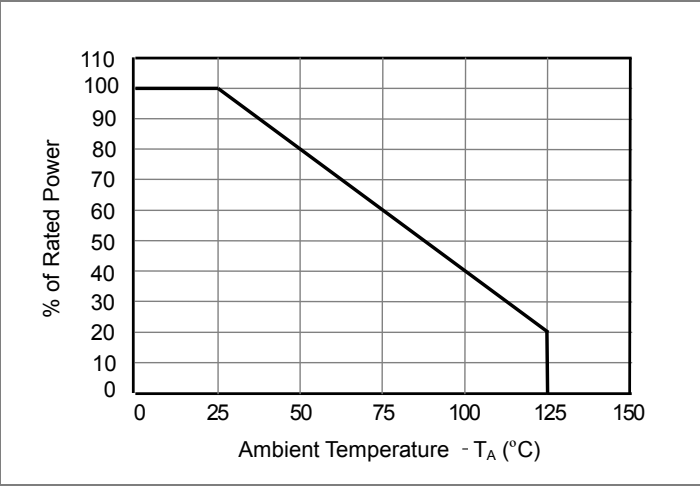
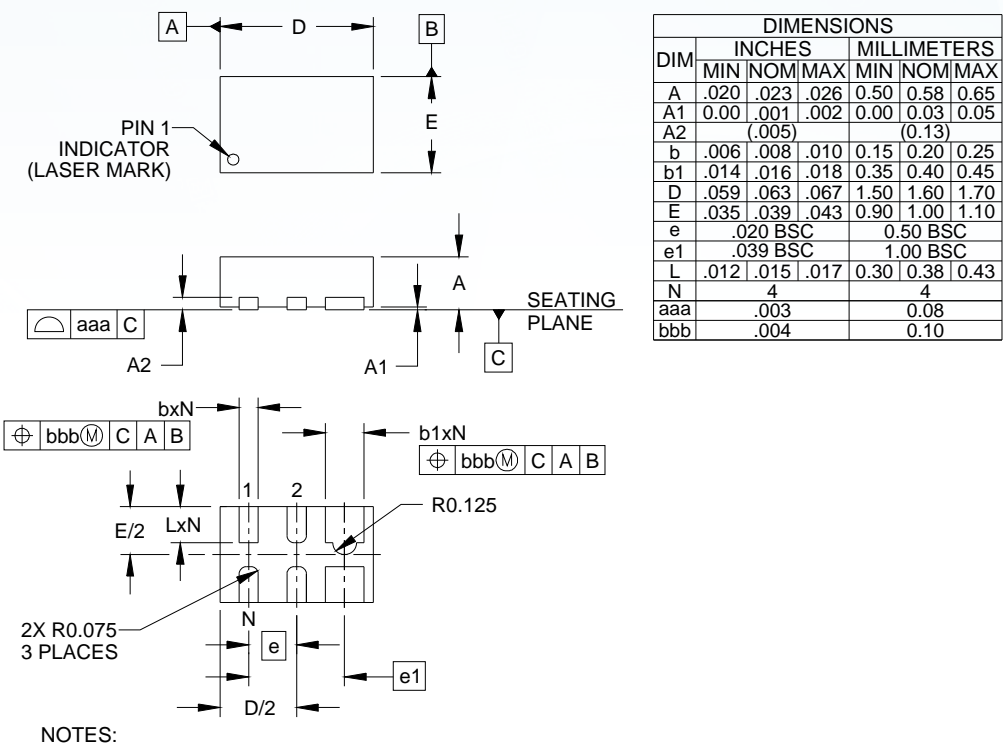


Fig3. Power Derating Curve

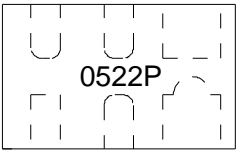


Low Capacitance TVS Diode Array

Outline Drawing - SLP1610P4



Marking



Ordering information

| Order code | Package | Base qty | Delivery mode |
|-------------|-----------|----------|---------------|
| RCLAMP0522P | SLP1610P4 | 3000 | Tape and reel |

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