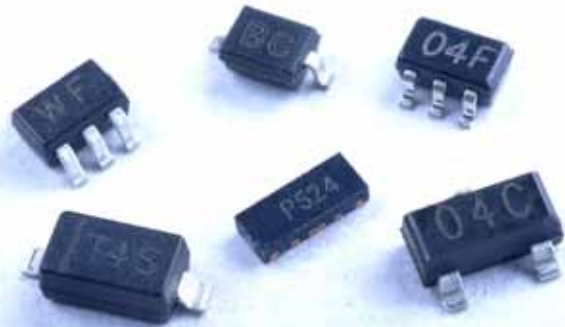


ELECTRONICS



TVS/ESD Arrays

RLSD52AxxxV Series

TVS/ESD Arrays - RLSD52AxxxV Series

Features

- 200 Watts peak pulse power ($t_p = 8/20\mu s$)
- Transient protection for data lines to IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 15kV$ (contact)
IEC 61000-4-4 (EFT) 40A ($t_p = 5/50ns$)
Cable Discharge Event (CDE)
- Ultra-small SOD-523 package (1.7 x 0.9 x 0.7mm)
- Protects one I/O or power line
- Low clamping voltage
- Working voltage
- Low leakage current
- Solid-state silicon-avalanche technology



Mechanical Characteristics

- SOD-523 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel per EIA 481
- Lead Finish: Matte tin
- RoHS Compliant

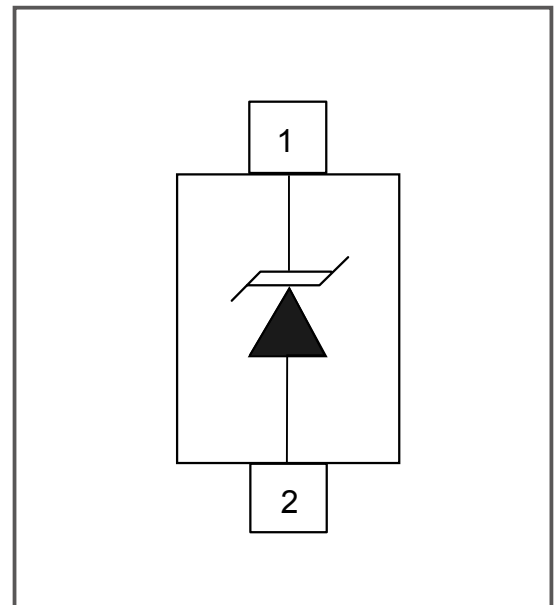
Applications

- Switches / Buttons
- Test Equipment /Instrumentation
- Point-of-Sale Terminals
- Medical Equipment
- Notebooks / Desktops /Servers
- Computer Peripherals

Life Support Note

- Not Intended for Use in Life Support or Life Saving Applications
- The products shown herein are not designed for use in life sustaining or life saving applications unless otherwise expressly indicated

Pinout and Functional Block Diagram



TVS/ESD Arrays - RLSD52AxxxV Series

Absolute Maximum Rating

| Rating | Symbol | Value | Units |
|--|------------------|---------------|-------|
| Peak Pulse Power (tp = 8/20μs) | P _{pk} | 200 | Watts |
| Maximum Peak Pulse Current (tp = 8/20μs) | I _{pp} | 8 | Amps |
| ESD voltage (HBM contact) | V _{ESD} | ±8 | Kv |
| ESD voltage (AIR contact) | V _{ESD} | ±15 | Kv |
| Lead Soldering Temperature | T _L | 260 (10 sec.) | °C |
| Operating Temperature | T _J | -55 to +125 | °C |
| Storage Temperature | T _{STG} | -55 to +150 | °C |

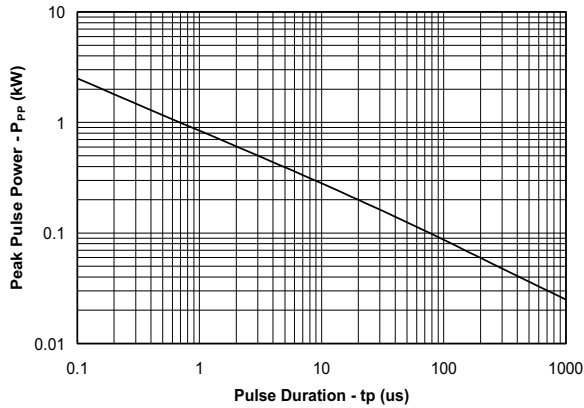
Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

| Type Number | Peak Power Dissipation @8/20μS P _{ppm} | Reverse Stand-Off Voltage | Peak Pulse Voltage @8/20μS | Peak Pulse Current @8/20μS | Reverse Leakage @V _{rw} m | Maximum Capacitance @1MHZ |
|-------------|---|---------------------------|-------------------------------|-------------------------------|---------------------------------------|------------------------------|
| | | V _{rw} m | V _{c@IPP} | IPP | IR@V _{rw} m | Co |
| | | Max | | | Max | Max |
| | W | V | V | A | μA | pF |
| RLSD52A031V | 200 | 3.3 | 6.5 | 5 | 1 | 200 |
| RLSD52A051V | 200 | 5 | 9 | 5 | 1 | 110 |
| RLSD52A081V | 200 | 8 | 15 | 5 | 1 | 70 |
| RLSD52A121V | 200 | 12 | 17 | 5 | 1 | 60 |
| RLSD52A151V | 200 | 15 | 22 | 5 | 1 | 50 |
| RLSD52A181V | 200 | 18 | 28 | 5 | 1 | 40 |
| RLSD52A241V | 200 | 24 | 32 | 3 | 1 | 25 |
| RLSD52A361V | 200 | 36 | 55 | 1 | 1 | 20 |

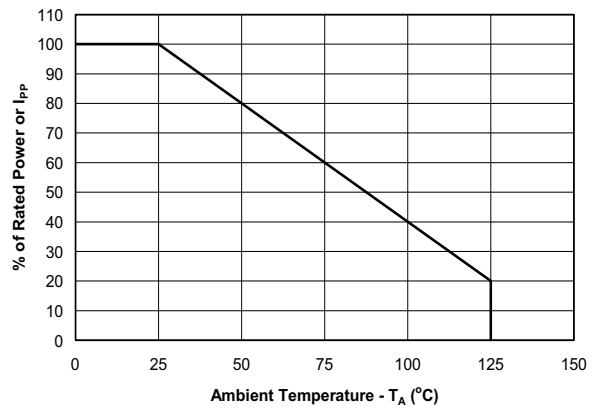
TVS/ESD Arrays - RLSD52AxxxV Series

Typical Characteristics

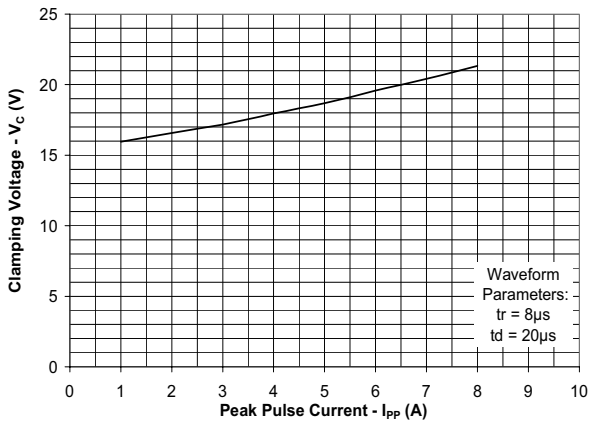
Non-Repetitive Peak Pulse Power vs. Pulse Time



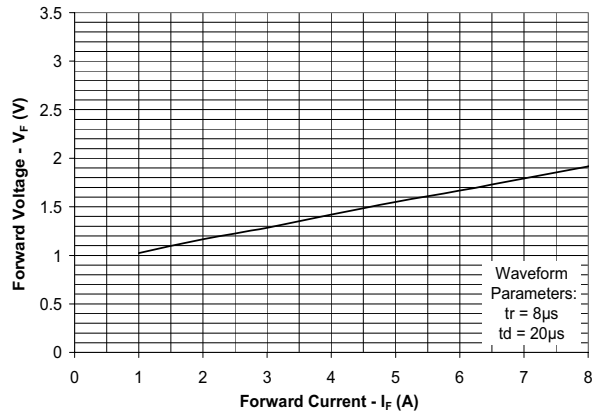
Power Derating Curve



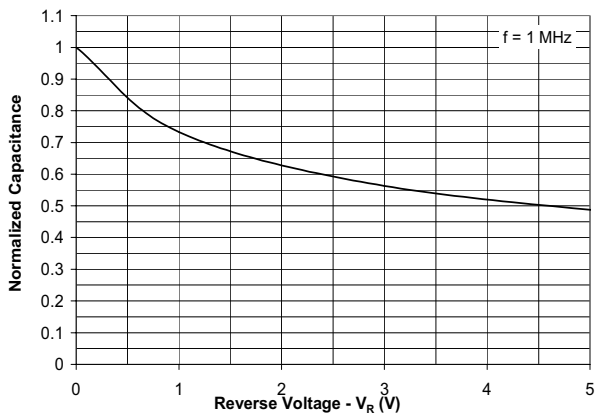
Clamping Voltage vs. Peak Pulse Current



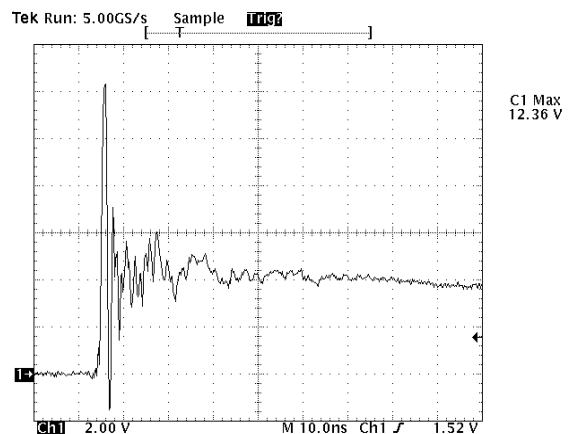
Forward Voltage vs. Forward Current



Junction Capacitance vs. Reverse Voltage

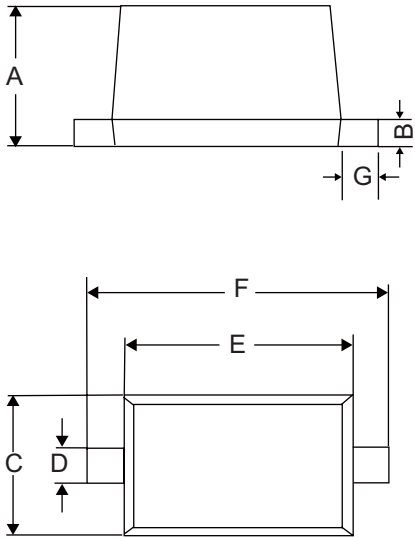


ESD Clamping (8kV Contact per IEC 61000-4-2)



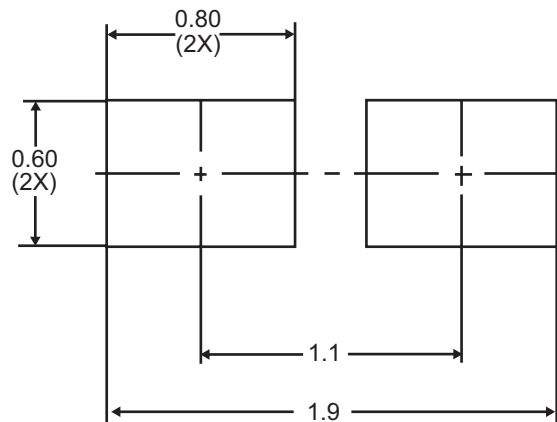
TVS/ESD Arrays - RLSD52AxxxV Series

Package dimension SOD-523



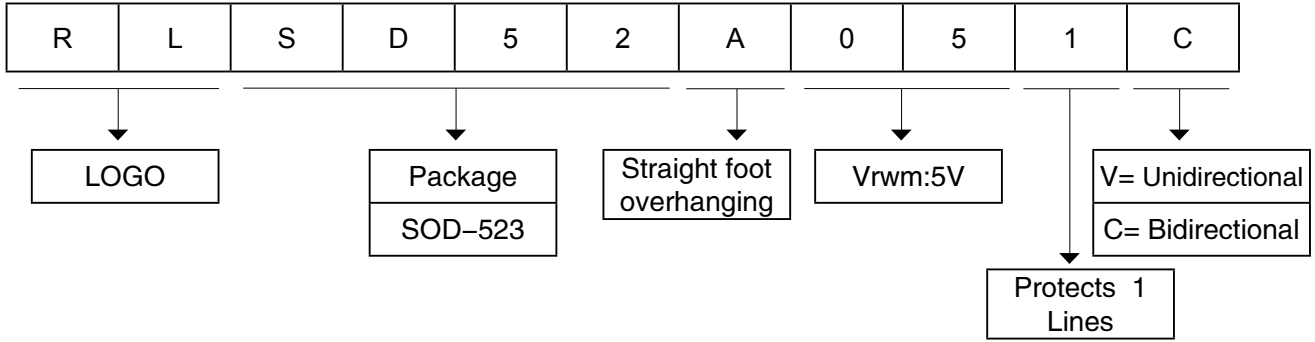
| Symbol | Dimensions | | | | | |
|--------|------------|-------|-------|-------------|------|------|
| | Inches | | | Millimeters | | |
| | Min | Nom | Max | Min | Nom | Max |
| A | 0.020 | 0.024 | 0.028 | 0.50 | 0.60 | 0.70 |
| B | 0.003 | 0.006 | 0.008 | 0.07 | 0.14 | 0.20 |
| C | 0.028 | 0.031 | 0.035 | 0.70 | 0.80 | 0.90 |
| D | 0.010 | 0.012 | 0.014 | 0.25 | 0.30 | 0.35 |
| E | 0.043 | 0.047 | 0.051 | 1.10 | 1.20 | 1.30 |
| F | 0.059 | 0.063 | 0.067 | 1.50 | 1.60 | 1.70 |
| G | 0.006 | 0.008 | 0.010 | 0.15 | 0.20 | 0.25 |

Recommended soldering footprint

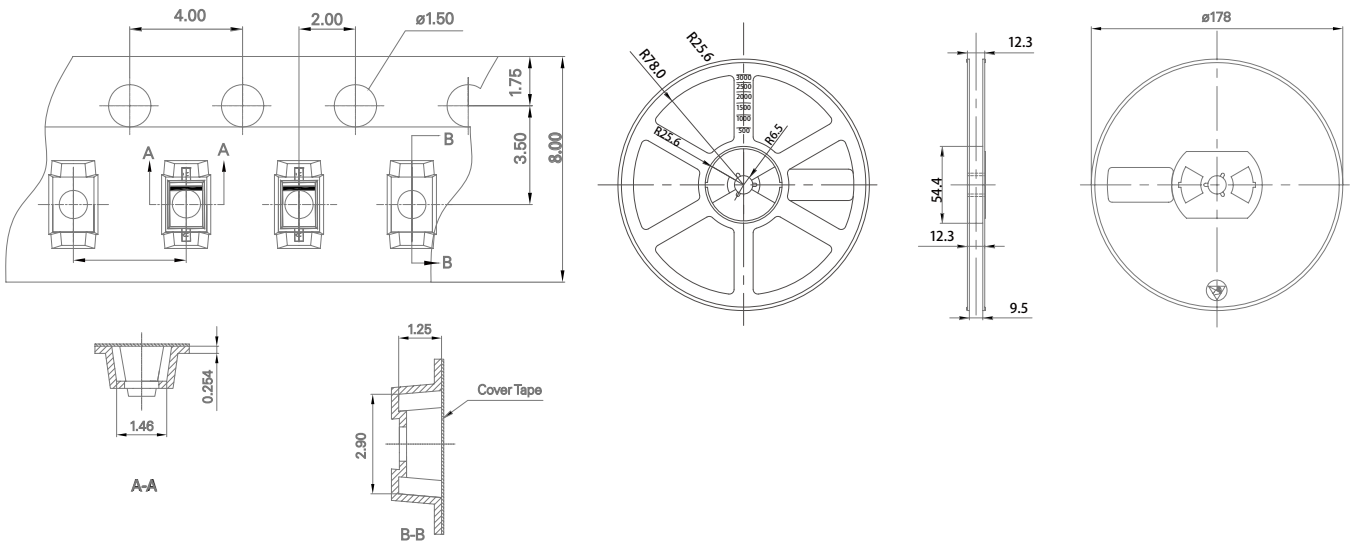


TVS/ESD Arrays - RLSD52AxxxV Series

Part Number Code



Tape and reel



Ordering Information

| Part Number | Package | Min. Order Qty. |
|-------------|---------|-----------------|
| RLSD52AxxxV | SOD-523 | 3000pcs |

Warehouse Storage Conditions of Products

Storage Conditions:

1. Storage Temperature: -10°C~+40°C
2. Relative Humidity: ≤75%RH
3. Keep away from corrosive atmosphere and sunlight.
4. Period of Storage: 1 year

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[SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD105-B1-02EL E6327](#) [ESD112-B1-02EL E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)
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