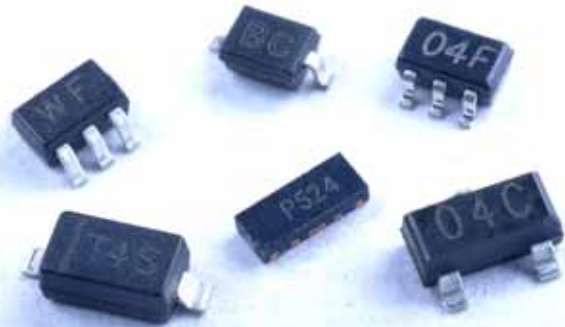


ELECTRONICS



# TVS/ESD Arrays

RLSD92AxxxC Series

## TVS/ESD Arrays - RLSD92AxxxC Series

### Features

- 150 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Transient protection for data lines to IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)  
IEC 61000-4-4 (EFT) 40A ( $t_p = 5/50ns$ )  
Cable Discharge Event (CDE)
- Ultra-small package (1.0 x 0.6 x 0.5mm)
- Protects one data or I/O line
- Low clamping voltage
- Solid-state silicon-avalanche technology



### Mechanical Characteristics

- SOD-923 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel per EIA 481
- Lead Finish: Matte tin
- RoHS Compliant

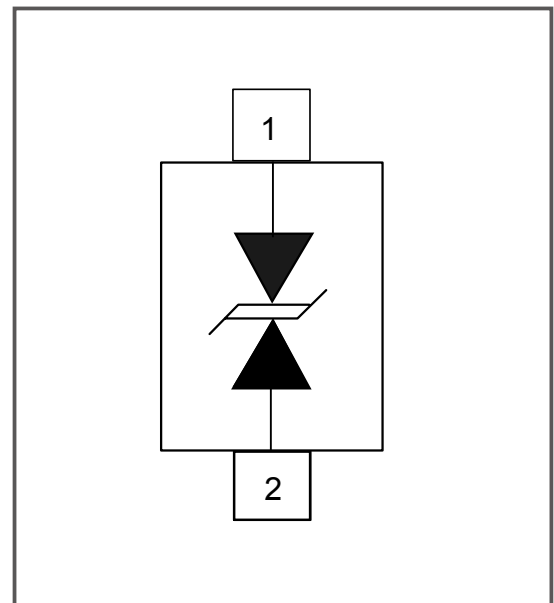
### Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Pagers 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 - RLSD92AxxxC Series

## Absolute Maximum Rating

| Rating                           | Symbol | Value       | Units |
|----------------------------------|--------|-------------|-------|
| Peak Pulse Power (tp = 8/20μs)   | Ppk    | 150         | Watts |
| Peak Pulse Current (tp = 8/20μs) | IPP    | 4           | A     |
| ESD voltage (HBM contact)        | VESD   | ±8          | Kv    |
| ESD voltage (AIR contact)        | VESD   | ±15         | Kv    |
| Operating Temperature            | TJ     | -55 to +125 | °C    |
| Storage Temperature              | TSTG   | -55 to +150 | °C    |

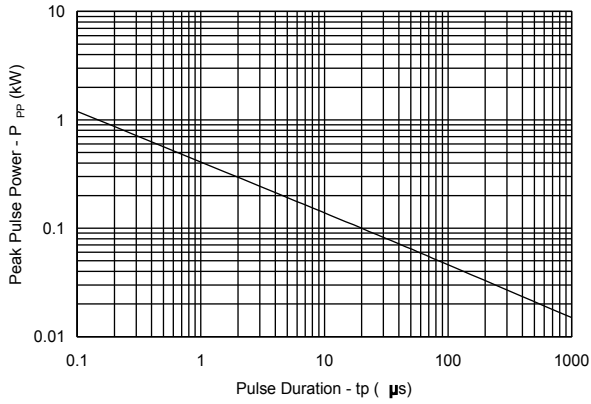
## Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

| Type Number | Peak Power Dissipation<br>@8/20μS<br>Pppm | Reverse Stand-Off Voltage | Peak Pulse Voltage<br>@8/20μS | Peak Pulse Current<br>@8/20μS | Reverse Leakage<br>@Vrwm | Maximum Capacitance<br>@1MHZ |
|-------------|---|---------------------------|-------------------------------|-------------------------------|--------------------------|------------------------------|
|             |   | Vrwm                      | Vc@IPP                        | IPP                           | IR@Vrwm                  | Co                           |
|             |   | Max                       |                               |                               | Max                      | Max                          |
|             | W   | V                         | V                             | A                             | μA                       | pF                           |
| RLSD92A031C | 100                                       | 3.3                       | 10                            | 1                             | 2.5                      | 30                           |
| RLSD92A051C | 100                                       | 5.0                       | 12                            | 1                             | 1                        | 15                           |

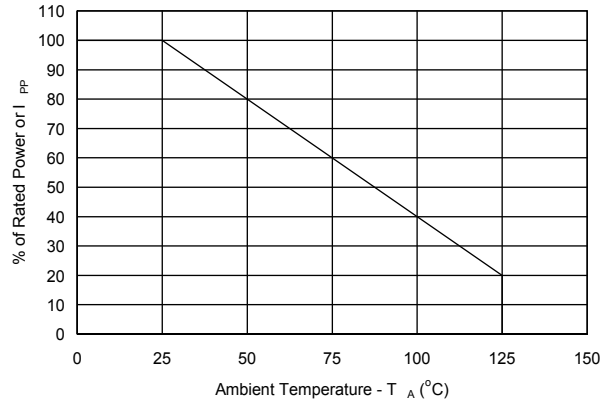
# TVS/ESD Arrays - RLSD92AxxxC Series

## Typical Characteristics

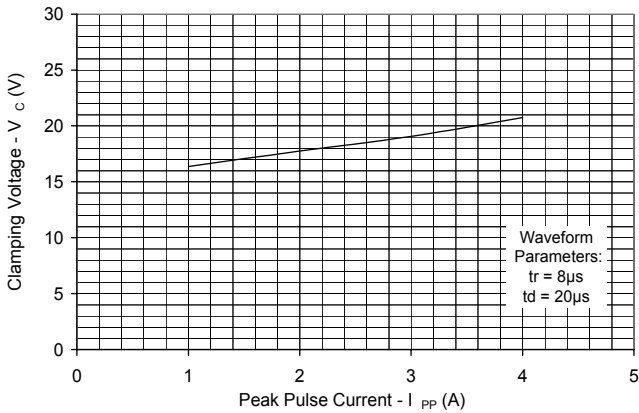
Non-Repetitive Peak Pulse Power vs. Pulse Time



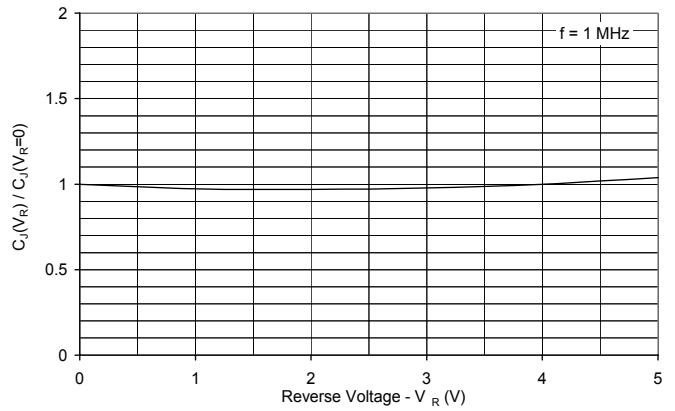
Power Derating Curve



Clamping Voltage vs. Peak Pulse Current

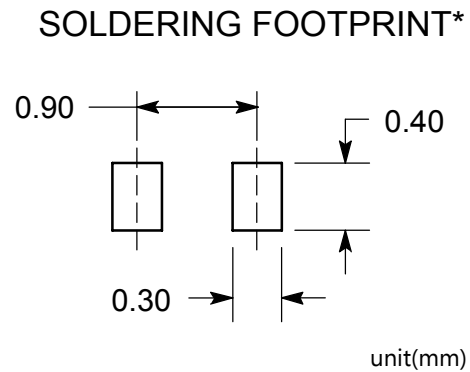
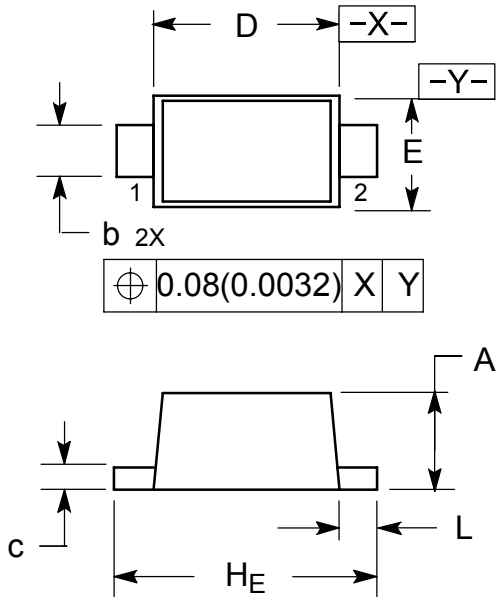


Normalized Capacitance vs. Reverse Voltage



## TVS/ESD Arrays - RLSD92AxxxC Series

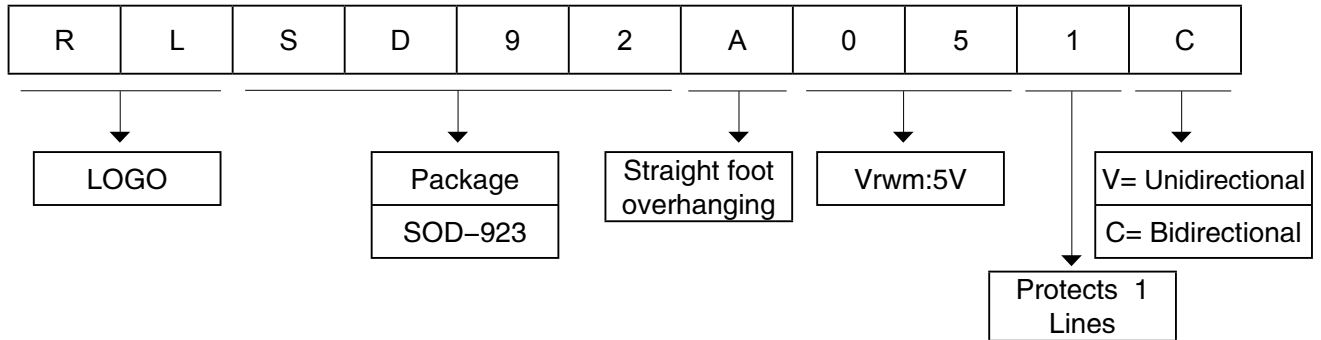
### Package dimension SOD-923



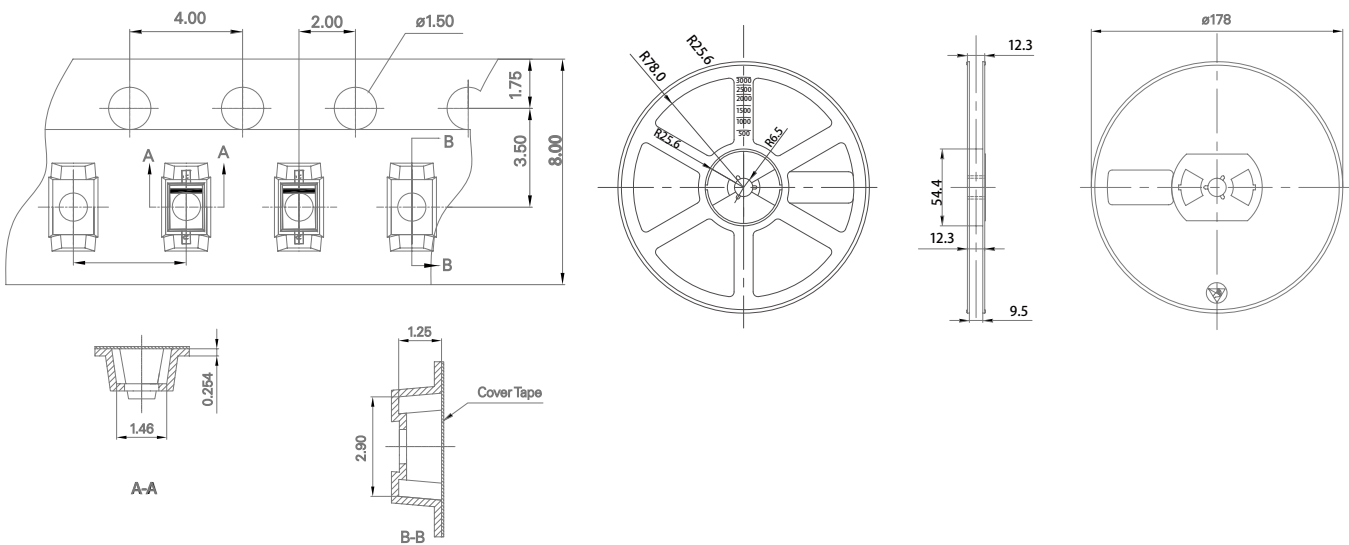
| DIM            | Dimensions |       |       |             |      |      |
|----------------|------------|-------|-------|-------------|------|------|
|                | Inches     |       |       | Millimeters |      |      |
|                | Min        | Nom   | Max   | Min         | Nom  | Max  |
| A              | 0.013      | 0.015 | 0.016 | 0.34        | 0.37 | 0.40 |
| B              | 0.006      | 0.008 | 0.010 | 0.15        | 0.20 | 0.25 |
| C              | 0.003      | 0.005 | 0.007 | 0.07        | 0.12 | 0.17 |
| D              | 0.030      | 0.031 | 0.038 | 0.75        | 0.80 | 0.85 |
| E              | 0.022      | 0.024 | 0.026 | 0.55        | 0.60 | 0.65 |
| H <sub>E</sub> | 0.039      | 0.039 | 0.041 | 0.95        | 1.00 | 1.05 |
| L              | 0.002      | 0.004 | 0.006 | 0.05        | 0.10 | 0.15 |

## TVS/ESD Arrays - RLSD92AxxxC Series

### Part Number Code



### Tape and reel



### Ordering Information

| Part Number  | Package | Min. Order Qty. |
|--------------|---------|-----------------|
| RLSD923AxxxC | SOD-923 | 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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