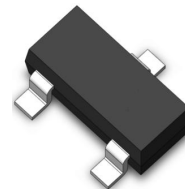


## Features

- 180 and 300 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- Bi-directional configurations
- Protects two I/O lines
- Working voltage: 3.3~24V
- Low clamping voltage
- Low leakage current
- Low Capacitance ESD Protection
- Moisture sensitivity level: Level 1
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-2(ESD)  $\pm 25kV$  (air),  $\pm 20kV$  (contact): 3.3~8V
- IEC61000-4-2(ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact): 12~24V



## Applications

- High-Speed data lines
- Cellular handsets AND accessories
- Universal Serial Bus (USB) port protection
- Portable instrumentation
- LAN / WAN equipment
- Peripherals

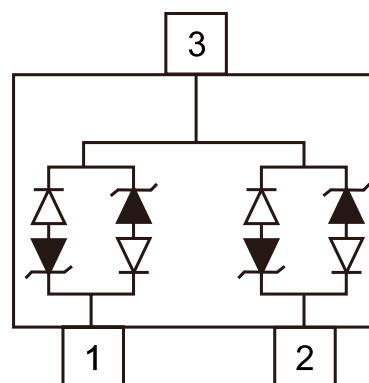
## Meachanical Data

- SOT-23 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- Weight 8.0 Milligrams (Approximate)

## Agency Approvals

| Icon                                                                                | Description                        |
|-------------------------------------------------------------------------------------|------------------------------------|
| RoHS                                                                                | Compliance with (EU)2015/863       |
| HF                                                                                  | Compliance with IEC61249-2-21:2003 |
|  | Mean lead free                     |

## Schematic & PIN Configuration



## Absolute Maximum Ratings

| Parameter                           | Symbol    | Value          | Unit        |
|-------------------------------------|-----------|----------------|-------------|
| Peak Pulse Power( $t_p=8/20\mu s$ ) | $P_{PK}$  | 180 and 300    | W           |
| Lead Soldering Temperature          | $T_L$     | 260(10seconds) | $^{\circ}C$ |
| Junction Temperature                | $T_J$     | -55 to +150    | $^{\circ}C$ |
| Storage Temperature                 | $T_{STG}$ | -40 to +125    | $^{\circ}C$ |

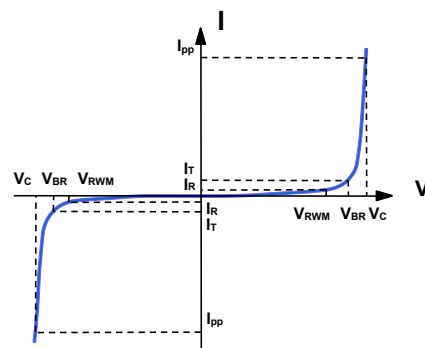
## Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number  | Device Marking | $V_{RWM}$<br>(V)<br>(Max.) | $V_{BR}$<br>(V)<br>(Min.) | $I_T$<br>(mA) | $V_C$<br>@1A<br>(Max.) | $V_C$  |      | $I_R$<br>( $\mu A$ )<br>(Max.) | $C$<br>(pF)<br>(Typ.) |
|--------------|----------------|----------------------------|---------------------------|---------------|------------------------|--------|------|--------------------------------|-----------------------|
|              |                |                            |                           |               |                        | (Max.) | (@A) |                                |                       |
| RLST23A032LC | BW3            | 3.3                        | 4.0                       | 1.0           | 7.0                    | 23     | 13   | 1                              | 1.5                   |
| RLST23A052LC | BW5            | 5.0                        | 6.0                       | 1.0           | 9.8                    | 25     | 12   | 1                              | 1.5                   |
| RLST23A082LC | BW8            | 8.0                        | 8.5                       | 1.0           | 13.4                   | 30     | 10   | 1                              | 1.5                   |
| RLST23A122LC | BWA            | 12.0                       | 13.3                      | 1.0           | 19.0                   | 36     | 5    | 1                              | 1.5                   |
| RLST23A152LC | BWC            | 15.0                       | 16.7                      | 1.0           | 24.0                   | 40     | 4.5  | 1                              | 1.5                   |
| RLST23A182LC | BWD            | 18.0                       | 19.7                      | 1.0           | 27.0                   | 45     | 4    | 1                              | 1.5                   |
| RLST23A242LC | BWF            | 24.0                       | 26.7                      | 1.0           | 43.0                   | 60     | 3    | 1                              | 1.5                   |

## I-V Curve Characteristics

| Symbol    | Parameter                                   |
|-----------|---------------------------------------------|
| $I_{PP}$  | Maximum Reverse Peak Pulse Current          |
| $V_C$     | Clamping Voltage @ $I_{PP}$                 |
| $V_{RWM}$ | Reverse Stand-Off Voltage                   |
| $I_R$     | Maximum Reverse Leakage Current @ $V_{RWM}$ |
| $V_{BR}$  | Breakdown Voltage @ $I_T$                   |
| $I_T$     | Test Current                                |

Note: 8/20 $\mu s$  pulse waveform.



## Characteristics Cureves(TA=25°C unless otherwise Specified)

Fig 1. 8/20μs Pulse Waveform

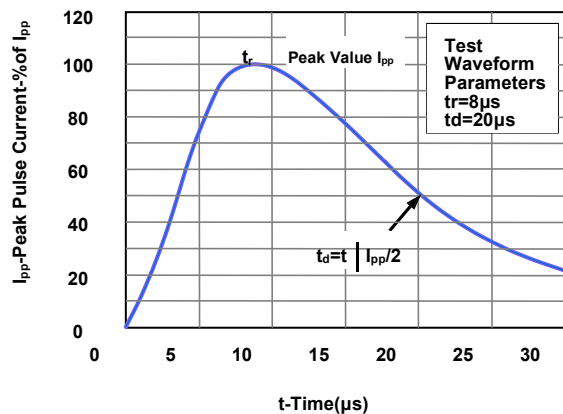


Fig 2. ESD Pulse Waveform (according to IEC61000-4-2)

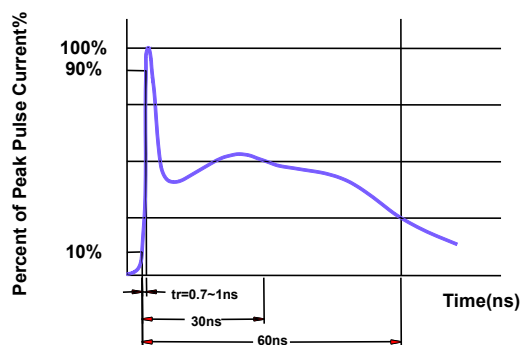
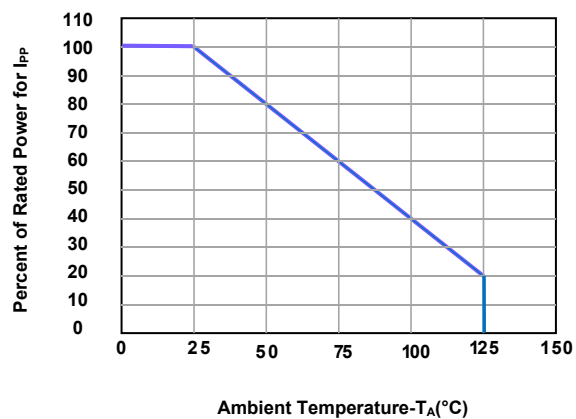
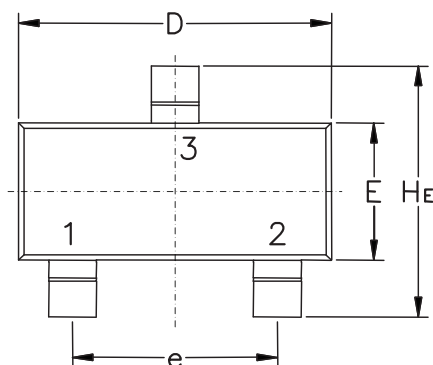


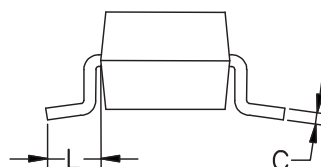
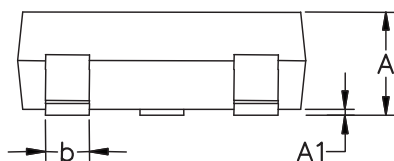
Fig 3. Power Derating Curve



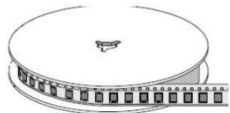
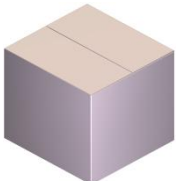
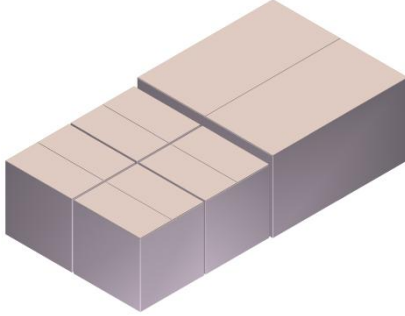
## SOT-23 Package Outline



| Symbol | Millimeters |      |      | Inches |       |       |
|--------|-------------|------|------|--------|-------|-------|
|        | Min.        | Nom. | Max. | Min.   | Nom.  | Max.  |
| A      | 1.05        | 1.11 | 1.25 | 0.042  | 0.044 | 0.050 |
| A1     | 0.01        | 0.06 | 0.10 | 0.001  | 0.002 | 0.004 |
| b      | 0.30        | 0.44 | 0.50 | 0.012  | 0.018 | 0.020 |
| C      | 0.09        | 0.13 | 0.20 | 0.003  | 0.005 | 0.008 |
| D      | 2.80        | 2.90 | 3.04 | 0.110  | 0.114 | 0.120 |
| E      | 1.50        | 1.60 | 1.70 | 0.059  | 0.051 | 0.067 |
| e      | 1.78        | 1.90 | 2.04 | 0.070  | 0.075 | 0.081 |
| L      | 0.35        | 0.54 | 0.69 | 0.014  | 0.021 | 0.027 |
| HE     | 2.65        | 2.80 | 2.95 | 0.104  | 0.112 | 0.116 |



## Packaging Information

|          | Reel                                                                                | Inner Box                                                                           | Carton                                                                                |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Size     | φ178mm(7 inch)                                                                      | 215×205×205mm                                                                       | 435×435×230mm                                                                         |
| Quantity | MPQ/MOQ:<br>1 reel=3000pcs                                                          | 1 Inner box=10 reels=30,000pcs                                                      | 1Carton=4 Inner boxes=120,000pcs                                                      |
| Photos   |  |  |  |

Notice: 1、 Each reel is placed in an aluminum foil bag and vacuum-packed separately.

2、 Above packaging photos make from 3D software for reference only, please refer to actual product as the standard.