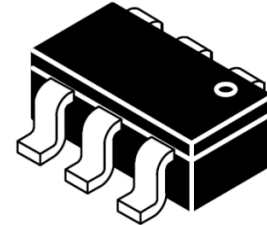


## LOW VOLTAGE TVS DIODE ARRAY FOR LVDS SIGNAL LINES PROTECTION

### Features

- 150 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- Protects Four Bidirectional I/O Lines
- Low Clamping Voltage
- Working Voltages : 3.3V
- Low Leakage Current
- IEC61000-4-2 (ESD)  $\pm 30kV$  (air),  $\pm 30kV$  (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (LIGHTNING) 30A (8/20 $\mu s$ )

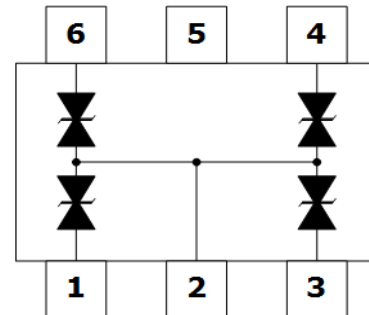
### Dimensions SOT-26



### Applications

- Cellular Handsets and Accessories
- Cordless Phones
- I<sup>2</sup>C Bus Protection
- Portable instrumentation
- Personal Digital Assistant (PDA)
- Microcontroller Input Protection

### Pin Configuration



### Mechanical Characteristics

- JEDEC SOT-26 Package
- Molding Compound Flammability Rating : UL 94V-0
- Weight 16.0 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

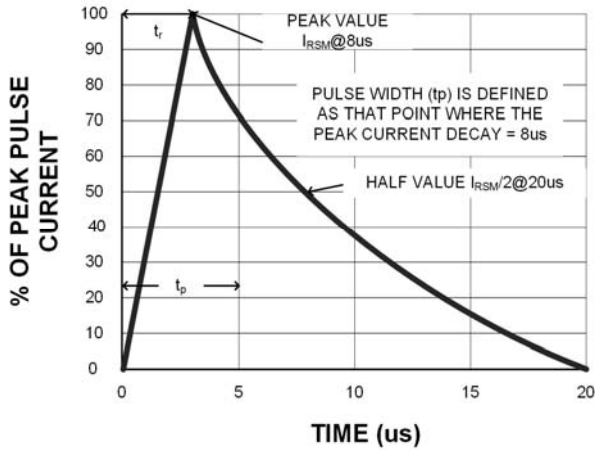
| Parameter                        | Symbol           | Value       | Unit |
|----------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20 $\mu s$ ) | P <sub>pp</sub>  | 150         | W    |
| ESD per IEC 61000-4-2 (Air)      | V <sub>ESD</sub> | $\pm 30$    | Kv   |
| ESD per IEC 61000-4-2 (Contact)  |                  | $\pm 30$    |      |
| Operating Temperature Range      | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature Range        | T <sub>STJ</sub> | -55 to +150 | °C   |

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

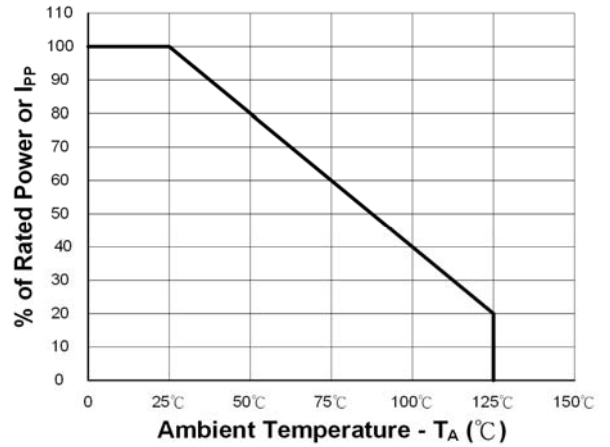
| Part Number | Device Marking | V <sub>RWM</sub><br>(V) | V <sub>BR</sub><br>(V) | I <sub>T</sub><br>(mA) | V <sub>C</sub><br>@1A | V <sub>C</sub> |      | I <sub>R</sub><br>μA<br>(Max) | C<br>(Pf)<br>(Typ.) |
|-------------|----------------|-------------------------|------------------------|------------------------|-----------------------|----------------|------|-------------------------------|---------------------|
|             |                |                         |                        |                        |                       | (Max)          | (@A) |                               |                     |
| SLA3304DT6  | LA3            | 3.3                     | 3.8                    | 1                      | 6                     | 11.8           | 13   | 0.1                           | 16                  |

TYPIC CHARACTERISTICS

8 x 20  $\mu$ s Waveform



Power Derating Curve



Clamping Voltage vs. Peak Pulse Current ( $t_p=8/20\mu s$ )

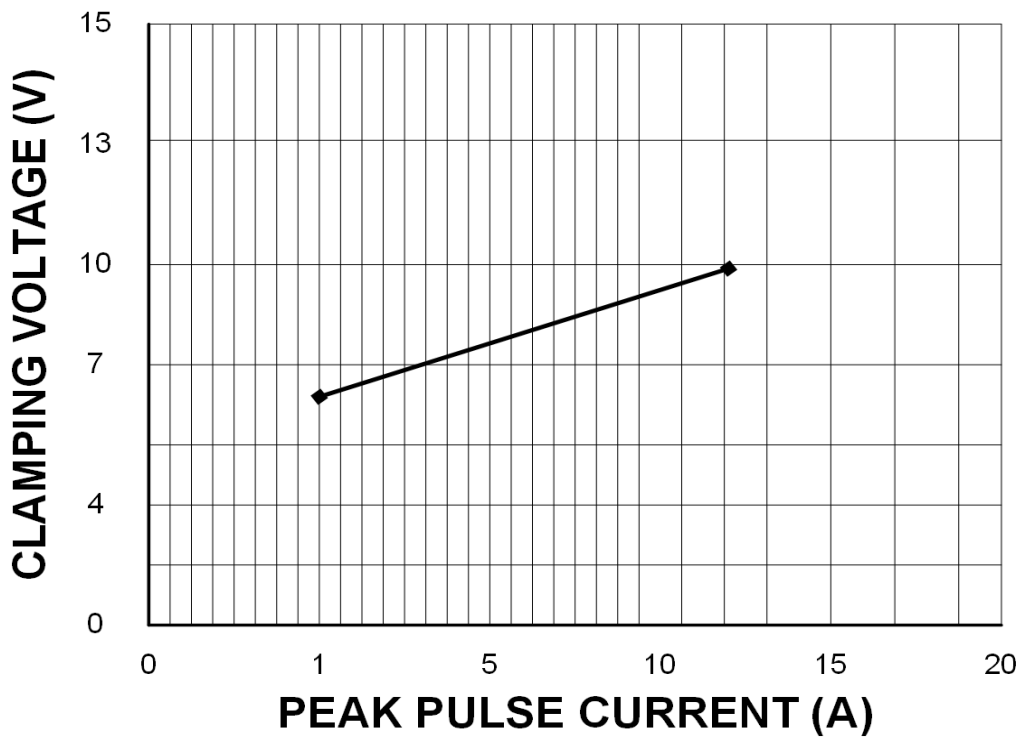
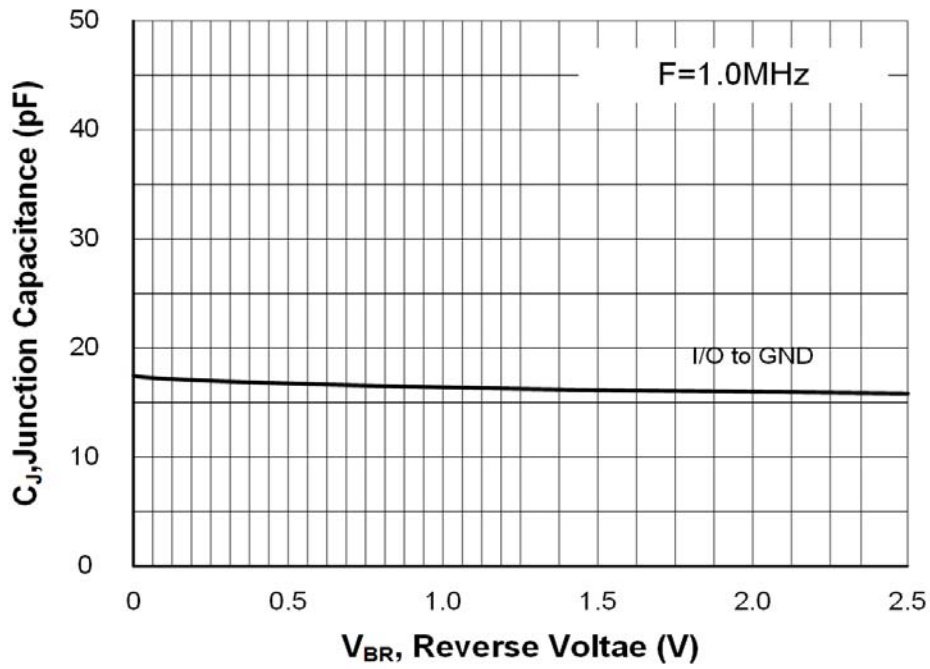
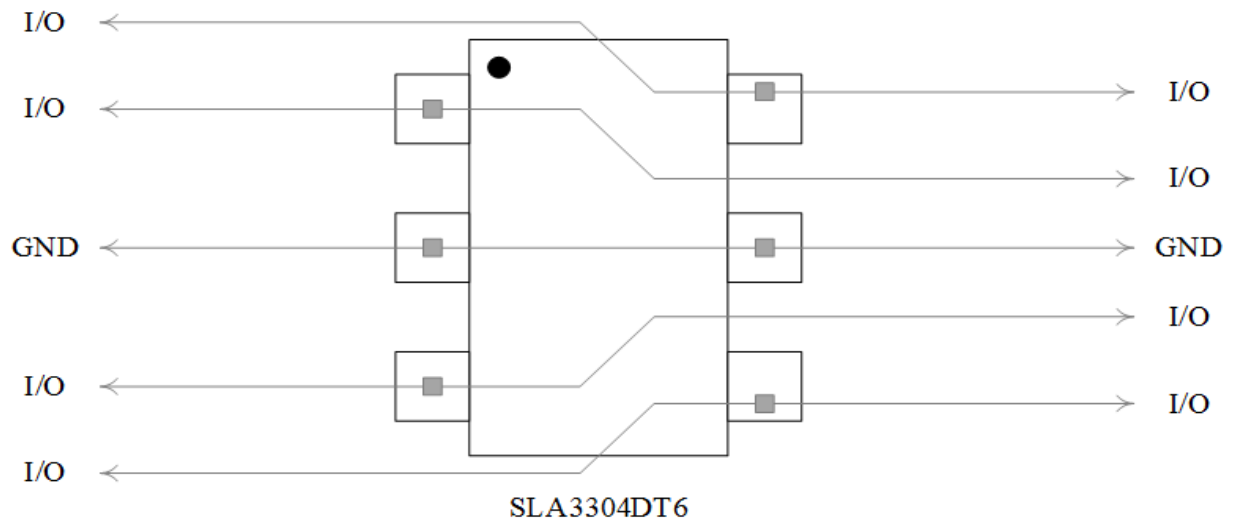


Figure 4. Typic Capacitance vs. Reverse Voltage

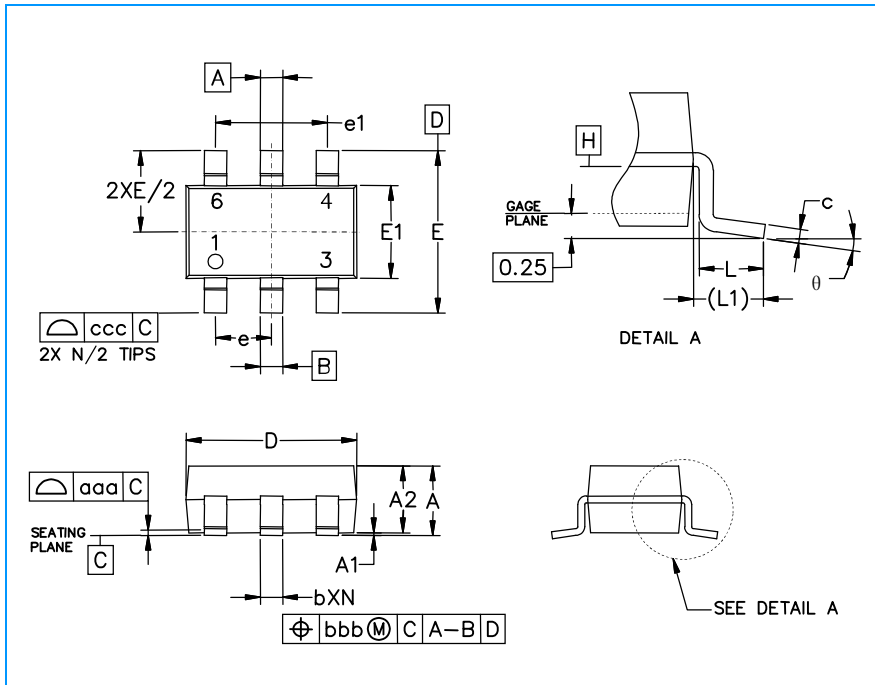


10/1000 Ethernet Layout Diagram

## Circuit Board Layout Recommendations

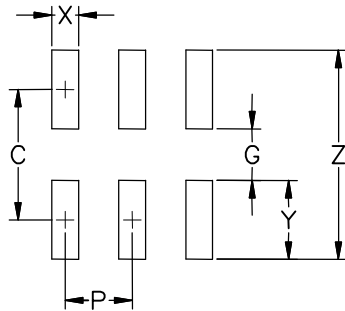


## SOT-26 Package Outline & Dimensions



| Symbol | Inches    |       |       | Millimeters |      |      |
|--------|-----------|-------|-------|-------------|------|------|
|        | Min.      | Nom.  | Max.  | Min.        | Nom. | Max. |
| A      | 0.035     | -     | 0.057 | 0.90        | -    | 1.45 |
| A1     | 0.000     | -     | 0.006 | 0.00        | -    | 0.15 |
| A2     | 0.035     | 0.045 | 0.051 | 0.90        | 1.15 | 1.30 |
| b      | 0.010     | -     | 0.020 | 0.25        | -    | 0.50 |
| c      | 0.003     | -     | 0.009 | 0.08        | -    | 0.22 |
| D      | 0.110     | 0.114 | 0.122 | 2.80        | 2.90 | 3.10 |
| E1     | 0.060     | 0.063 | 0.069 | 1.50        | 1.60 | 1.75 |
| E      | 0.110 BSC |       |       | 2.80 BSC    |      |      |
| e      | 0.037 BSC |       |       | 0.95 BSC    |      |      |
| e1     | 0.075 BSC |       |       | 1.90 BSC    |      |      |
| L      | 0.012     | 0.018 | 0.024 | 0.30        | 0.45 | 0.60 |
| L1     | (0.024)   |       |       | (0.60)      |      |      |
| theta  | 0°        | -     | 10°   | 0°          | -    | 10°  |
| aaa    | 0.004     |       |       | 0.10        |      |      |
| bbb    | 0.008     |       |       | 0.20        |      |      |
| ccc    | 0.008     |       |       | 0.20        |      |      |

### Soldering Footprint



| Symbol | Inches  | Millimeters |
|--------|---------|-------------|
| C      | (0.098) | (2.50)      |
| G      | 0.055   | 1.40        |
| P      | 0.037   | 0.95        |
| X      | 0.024   | 0.60        |
| Y      | 0.043   | 1.10        |
| Z      | 0.141   | 3.60        |