

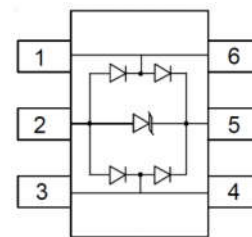
### Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 15\text{kV}$
    - Contact discharge:  $\pm 8\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

### Dimensions SOT23-6



### Pin Configuration



### Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

### Mechanical Characteristics

- Package: SOT23-6
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch

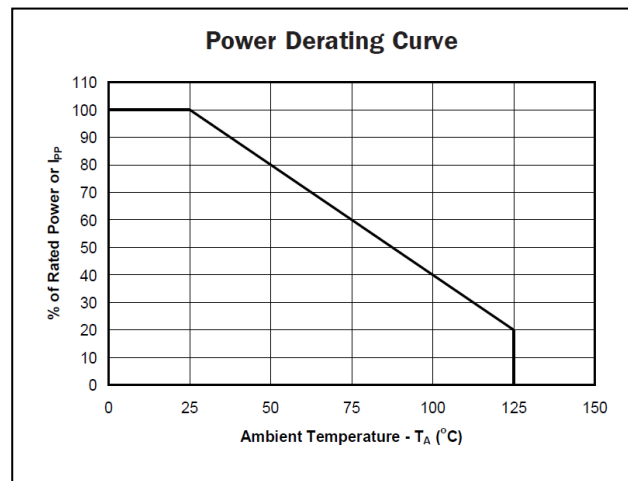
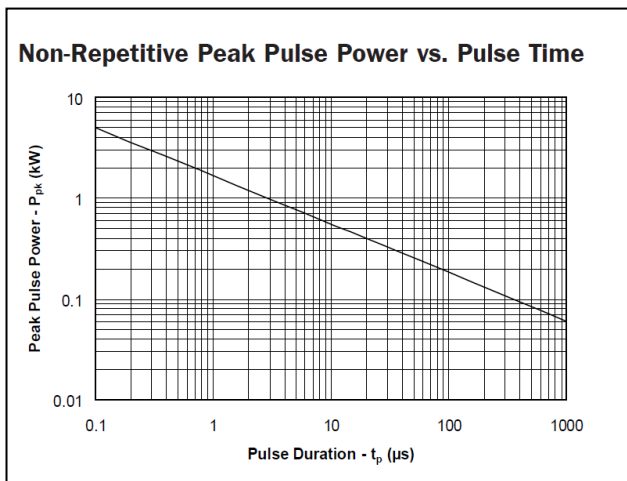
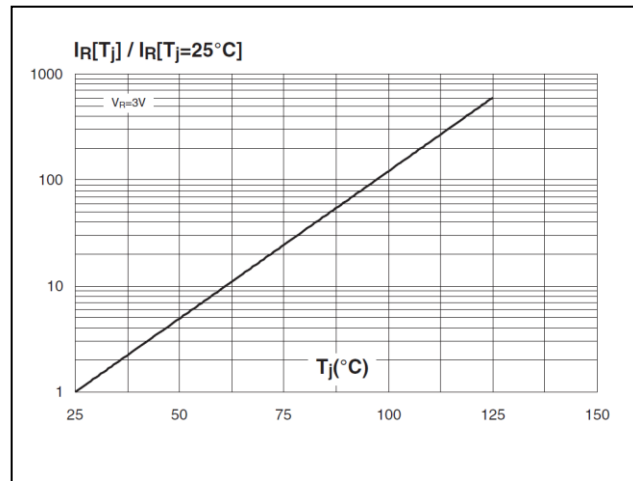
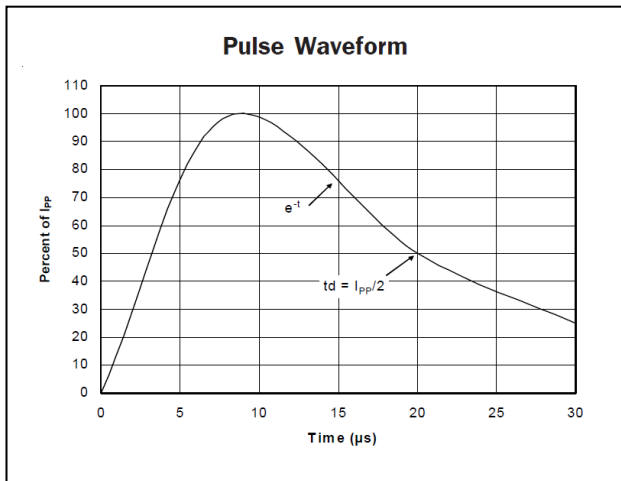
### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

| 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> | $\pm 15$    | Kv   |
| ESD per IEC 61000-4-2 (Contact) |                  | $\pm 8$     |      |
| 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)

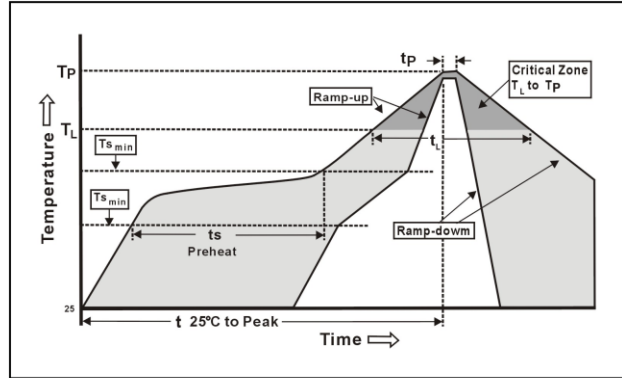
| Part Number | Device Marking | V <sub>RWM</sub> (V) | V <sub>BR</sub> (V) | I <sub>T</sub> (mA) | V <sub>C</sub> @1A | V <sub>C</sub> |      | I <sub>R</sub> μA (Max) | C (Pf) (Typ.) |
|-------------|----------------|----------------------|---------------------|---------------------|--------------------|----------------|------|-------------------------|---------------|
|             |                |                      |                     |                     |                    | (Max)          | (@A) |                         |               |
| ULC05-2     | UL26           | 5                    | 6                   | 1                   | 15                 | 25             | 5    | 1                       | 2             |

**Characteristic Curves**



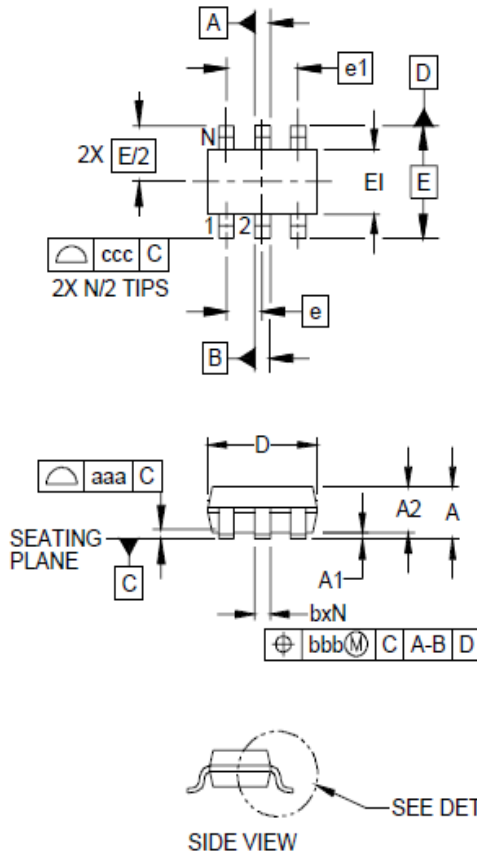
## Soldering Parameters

|  |                                    |                         |
|--|------------------------------------|-------------------------|
| Reflow Condition                                       |                                    | Fb – Free assembly      |
| Pre Heat   | - Temperature Min ( $T_{s(Min)}$ ) | 150°C                   |
|  | - Temperature Max ( $T_{s(Max)}$ ) | 200°C                   |
|  | - Time (Min to max) ( $t_y$ )      | 60 – 180 secs           |
| Average ramp up rate (Liquidus) Temp ( $T_L$ ) to peak |                                    | 3°C/second Max          |
| $T_{s(Max)}$ to $T_L$ - Ramp-up Rate                   |                                    | 3°C/second Max          |
| Reflow   | - Temperature ( $T_L$ ) (Liquidus) | 217°C                   |
|  | - Temperature ( $t_L$ )            | 60 – 150 seconds        |
| Peak Temperature ( $T_p$ )                             |                                    | 250 <sup>+0/-5</sup> °C |
| Time within 5°C of actual peak Temperature ( $t_p$ )   |                                    | 20 – 40 seconds         |
| Ramp-down Rate   |                                    | 6°C/second Max          |
| Time 25°C to peak Temperature ( $T_p$ )                |                                    | 8 minutes Max.          |
| Do not exceed  |                                    | 260°C                   |



## Package Outline SOT23-6

Plastic surface mounted package



| DIM | INCHES   |      |      | MILLIMETERS |      |      |
|-----|----------|------|------|-------------|------|------|
|     | MIN      | NOM  | MAX  | MIN         | NOM  | MAX  |
| A   | .035     | -    | .057 | 0.90        | -    | 1.45 |
| A1  | .000     | -    | .006 | 0.00        | -    | 0.15 |
| A2  | .035     | .045 | .051 | .90         | 1.15 | 1.30 |
| b   | .010     | -    | .020 | 0.25        | -    | 0.50 |
| c   | .003     | -    | .009 | 0.08        | -    | 0.22 |
| D   | .110     | .114 | .122 | 2.80        | 2.90 | 3.10 |
| E1  | .060     | .063 | .069 | 1.50        | 1.60 | 1.75 |
| E   | .110 BSC |      |      | 2.80 BSC    |      |      |
| e   | .037 BSC |      |      | 0.95 BSC    |      |      |
| e1  | .075 BSC |      |      | 1.90 BSC    |      |      |
| L   | .012     | .018 | .024 | 0.30        | 0.45 | 0.60 |
| L1  | (.024)   |      |      | (0.60)      |      |      |
| N   | 6        |      |      | 6           |      |      |
| θ1  | 0°       | -    | 10°  | 0°          | -    | 10°  |
| aaa | .004     |      |      | 0.10        |      |      |
| bbb | .008     |      |      | 0.20        |      |      |
| ccc | .008     |      |      | 0.20        |      |      |

单击下面可查看定价，库存，交付和生命周期等信息

[>>Leiditech\(雷卯电子\)](#)