

### Features

- Small Body Outline Dimensions:
- Protects one I/O or power line
- Low Clamping Voltage
- Working Voltage: 18V
- Low Leakage Current



### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 15\text{kV}$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 2.5A (8/20 $\mu\text{s}$ )

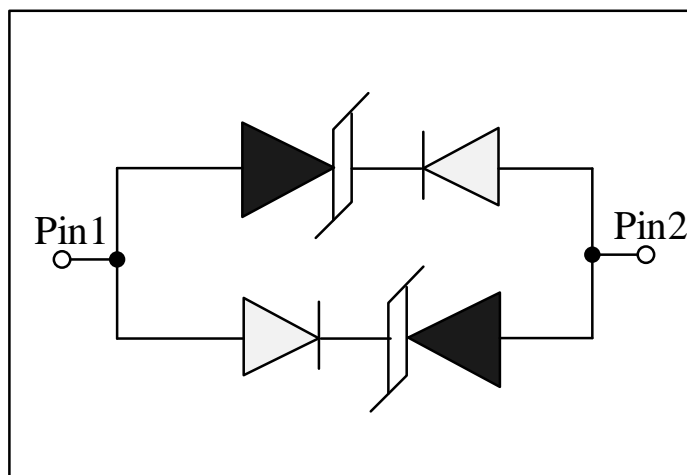
### Mechanical Characteristics

- DFN1006-2L package
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant & HF

### Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistants (PDAs)

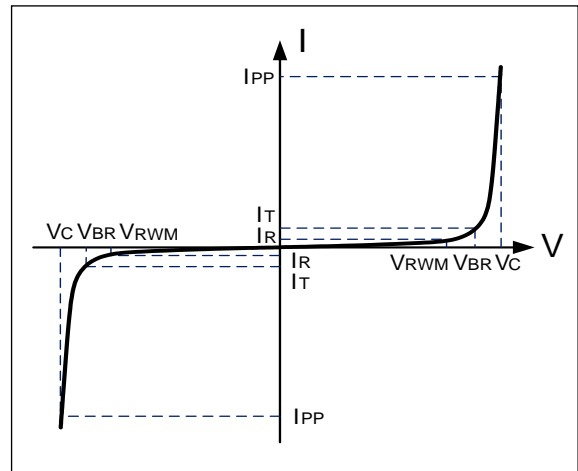
### Schematic & PIN Configuration



| Absolute Maximum Rating                  |           |              |       |
|--|-----------|--------------|-------|
| Rating                                   | Symbol    | Value        | Units |
| Peak Pulse Power ( $t_p = 8/20\mu s$ )   | $P_{PP}$  | 75           | W     |
| Peak Pulse Current ( $t_p = 8/20\mu s$ ) | $I_{PP}$  | 2.5          | A     |
| Operating Temperature                    | $T_J$     | -55 to + 125 | °C    |
| Storage Temperature                      | $T_{STG}$ | -55 to +150  | °C    |

Electrical Parameters

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



Electrical Characteristics(T=25°C unless otherwise noted)

| WE18DUCF-B                        |           |                                     |         |         |         |       |
|-----------------------------------|-----------|-------------------------------------|---------|---------|---------|-------|
| Parameter                         | Symbol    | Conditions                          | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage         | $V_{RWM}$ |                                     |         |         | 18      | V     |
| Reverse Breakdown Voltage         | $V_{BR}$  | $I_T = 1mA$                         | 19.5    |         |         | V     |
| Reverse Leakage Current           | $I_R$     | $V_{RWM} = 18V$                     |         |         | 200     | nA    |
| Clamping Voltage                  | $V_C$     | $I_{PP} = 2.5A, t_p = 8/20\mu s$    |         | 27      | 30      | V     |
| ESD Clamping Voltage <sup>1</sup> | $V_C$     | $I_{PP} = 4A$<br>$t_p = 0.2/100ns$  |         | 26.6    |         | V     |
| ESD Clamping Voltage <sup>1</sup> | $V_C$     | $I_{PP} = 16A$<br>$t_p = 0.2/100ns$ |         | 41.8    |         | V     |
| Dynamic Resistance <sup>1,2</sup> | $R_{DYN}$ | $TLP = 0.2/100ns$                   |         | 1.3     |         | Ω     |
| Junction Capacitance              | $C_j$     | $V_R = 0V, f = 1MHz$                |         | 0.7     | 1.2     | pF    |

**Note:** 1、 TLP Setting :  $t_p = 100ns, t_r = 0.2ns, I_{TLP}$  and  $V_{TLP}$  sample window:  $t_1 = 70ns$  to  $t_2 = 90ns$ .  
 2、 Dynamic resistance calculated from  $I_{PP} = 4A$  to  $I_{PP} = 16A$  using “Best Fit”.

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

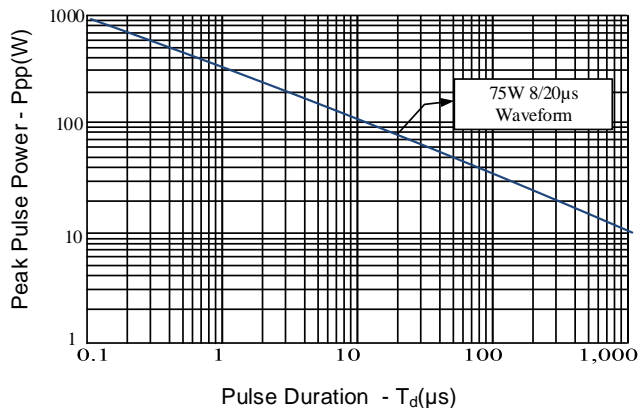


Figure 2: Power Derating Curve

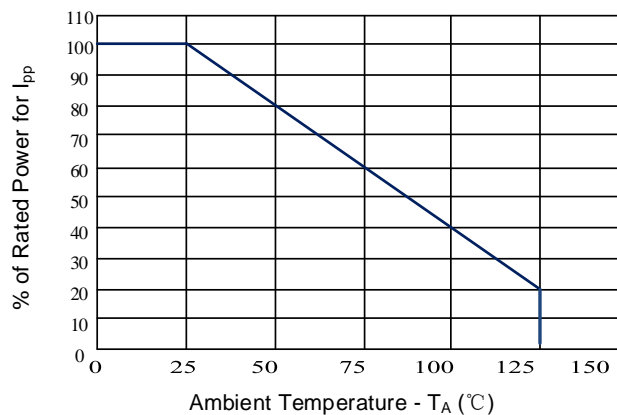


Figure 3: Clamping Voltage vs. Peak Pulse Current

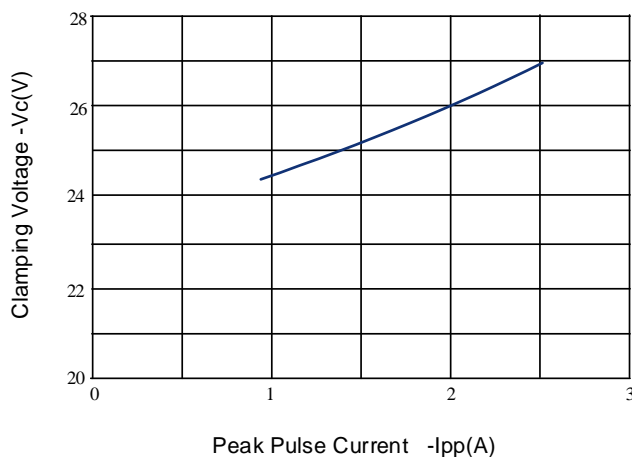


Figure 4: Normalized Junction Capacitance

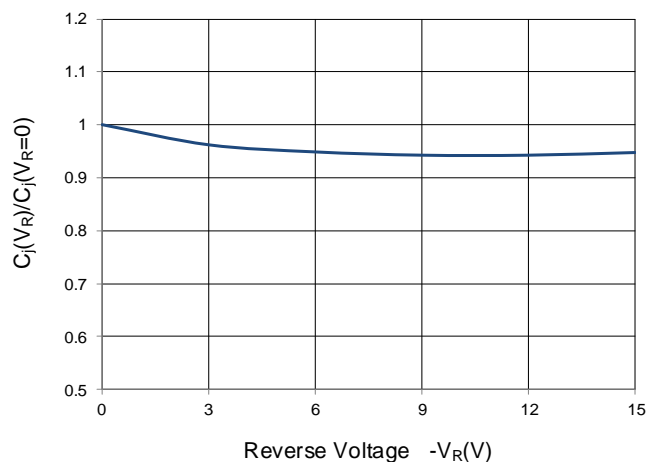


Figure 5: TLP Positive I-V Curve

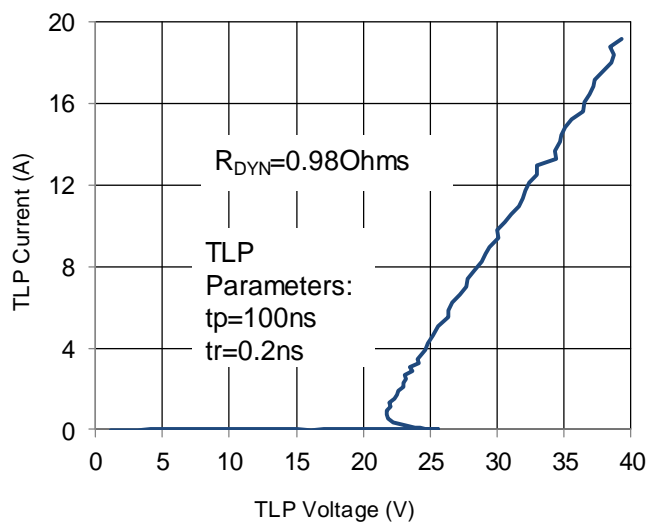
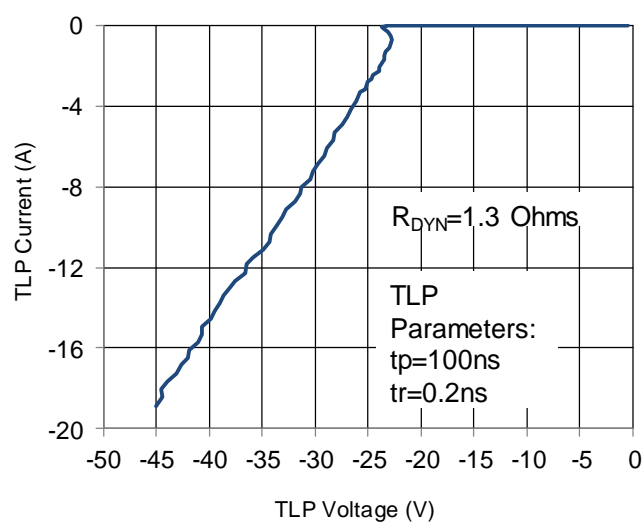
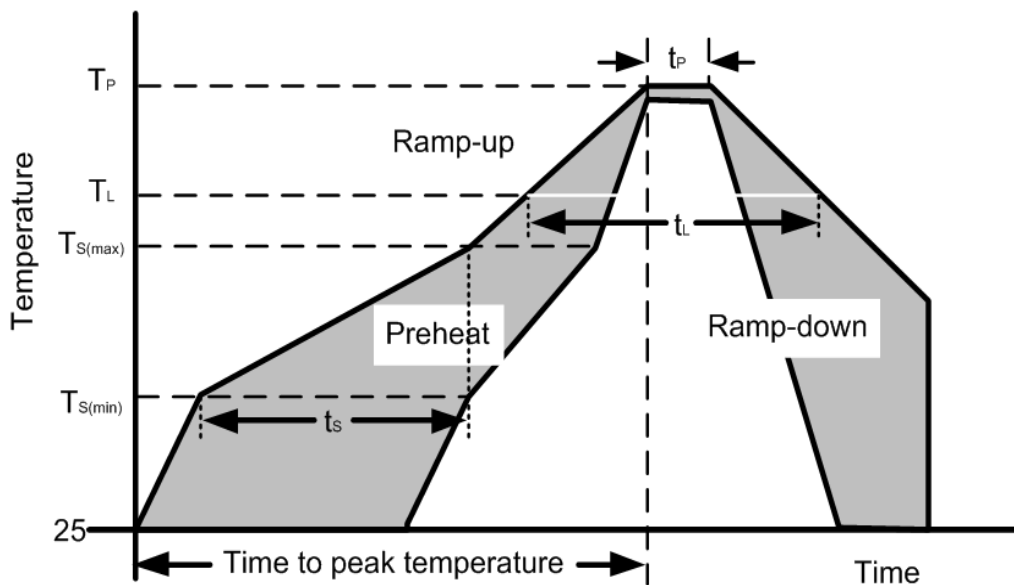


Figure 6: TLP Negative I-V Curve



Soldering Parameters

| Reflow Condition                                       |                                  | Pb – Free assembly |
|--|----------------------------------|--------------------|
| Pre Heat   | Temperature Min ( $T_{S(min)}$ ) | 150°C              |
|  | Temperature Max ( $T_{S(max)}$ ) | 200°C              |
|  | Time (min to max) ( $t_s$ )      | 60 – 190 secs      |
| Average ramp up rate (Liquidus Temp) ( $T_L$ ) to peak |                                  | 5°C/second max     |
| $T_{S(max)}$ to $T_L$ —Ramp-up Rate                    |                                  | 5°C/second max     |
| Reflow   | Temperature ( $T_L$ ) (Liquidus) | 217°C              |
|  | Temperature ( $t_L$ )            | 60 – 150 seconds   |
| Peak Temperature ( $T_P$ )                             |                                  | 260+0/-5 °C        |
| Time within actual peak Temperature ( $t_p$ )          |                                  | 20 – 40 seconds    |
| Ramp-down Rate   |                                  | 5°C/second max     |
| Time 25°C to peak Temperature ( $T_P$ )                |                                  | 8 minutes Max.     |
| Do not exceed  |                                  | 280°C              |





单击下面可查看定价，库存，交付和生命周期等信息

[>>WAY-ON\(维安\)](#)