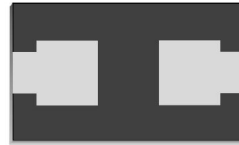




Features

- Small Body Outline Dimensions:
0.039"x 0.024"(1.0 mm x 0.60 mm)
- Protects one I/O or power line
- Low Clamping Voltage
- Ultra Low Capacitance:type:3.5pF
- Working Voltage: 5 V
- Low Leakage Current
- Response Time is Typically < 1 ns



DFN-2L

IEC COMPATIBILITY (EN61000-4)

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

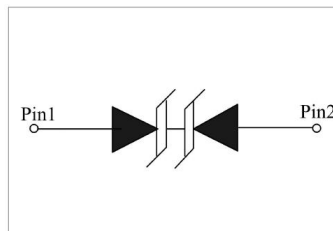
Mechanical Characteristics

- DFN-2L package
- Molding compound flammability rating:
UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS/WEEE Compliant

Applications

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

Schematic & PIN Configuration

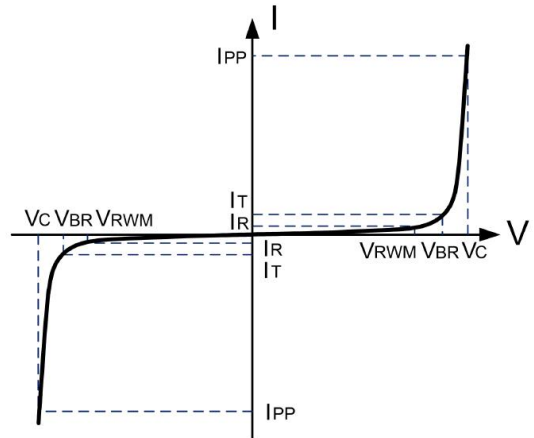


**Absolute Maximum Rating**

| Rating | Symbol | Value | Units |
|--|--------|---------------|-------|
| Electrostatic discharge Voltage (See Note1 ,2) | VESD | 8KV (contact) | Volts |
| | | 15KV (air) | |
| Operating Temperature | TJ | -55 to + 125 | °C |
| Storage Temperature | TSTG | -55 to +150 | °C |

Electrical Parameters (T=25°C)

| Symbol | Parameter |
|--------|--|
| IPP | Maximum Reverse Peak Pulse Current |
| VC | Clamping Voltage @ IPP |
| VRWM | Working Peak Reverse Voltage |
| IR | Maximum Reverse Leakage Current @ VRWM |
| VBR | Breakdown Voltage @ IT |
| IT | Test Current |
| IF | Forward Current |
| VF | Forward Voltage @ IF |

**Electrical Characteristics**

| PT2C051L | | | | | | |
|---------------------------|--------|-------------------|---------|---------|---------|-------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | VRWM | | | | 5.0 | V |
| Reverse Breakdown Voltage | VBR | IT=1mA | 6.0 | | | V |
| Reverse Leakage Current | IR | VRWM=5V, T=25°C | | | 1 | µA |
| Clamping Voltage | VC | IPP=1A, tp=8/20µs | | 8.5 | 12.5 | V |
| Junction Capacitance | Cj | VR = 0V, f= 1MHz | | 3.5 | 6 | pF |

Note1: ESD Pulse Waveform according to IEC 61000-4-2. see Table1 and Figure4.

Note2: ESD tests Setup see Figure 5.



Typical Characteristics

Figure 1: Power Derating Curve

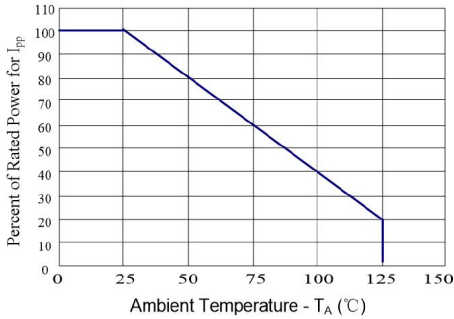


Figure 2: Insertion Loss



Figure 3: Normalized Junction Capacitance vs. Reverse Voltage

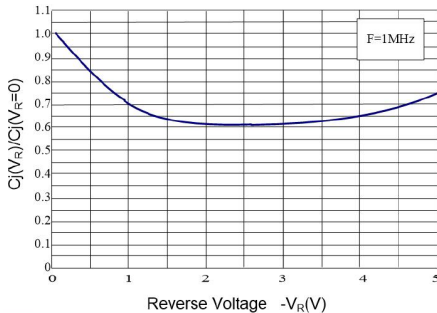


Figure 4: IEC 61000-4-2 Waveform

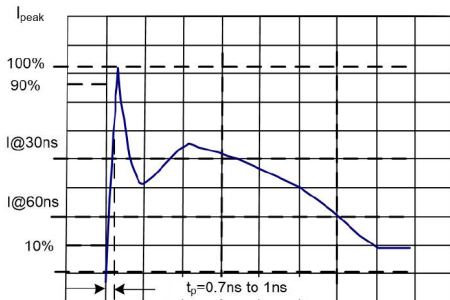
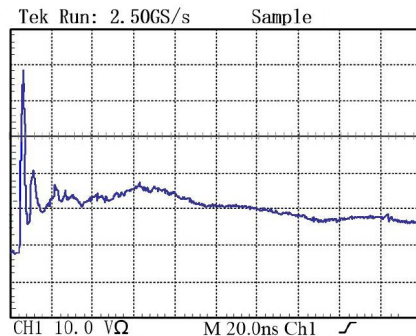


Table 1. IEC 61000-4-2 Discharge Parameters

| Level | First Peak Current (A) | Peak Current at 30 ns (A) | Peak Current at 60 ns (A) | Test Voltage (Contact Discharge) (kV) | Test Voltage (Air Discharge) (kV) |
|-------|------------------------|---------------------------|---------------------------|---------------------------------------|-----------------------------------|
| 1 | 7.5 | 4 | 2 | 2 | 2 |
| 2 | 15 | 8 | 4 | 4 | 4 |
| 3 | 22.5 | 12 | 6 | 6 | 8 |
| 4 | 30 | 16 | 8 | 8 | 15 |

Figure 5: ESD Clamping (8kV Contact per IEC 61000-4-2)



Outline Drawing –DFN-2L

