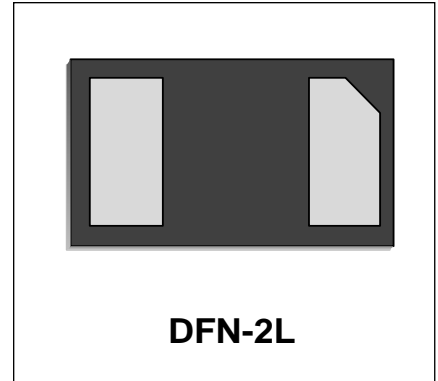


Features

- 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:3pF
- Working Voltage: 5 V
- Low Leakage Current
- Response Time is Typically < 1 ns



IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

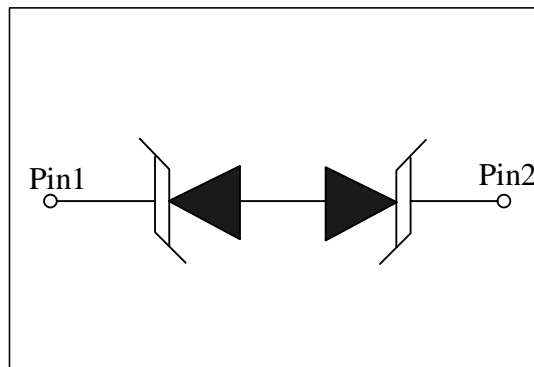
Mechanical Characteristics

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

Applications

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

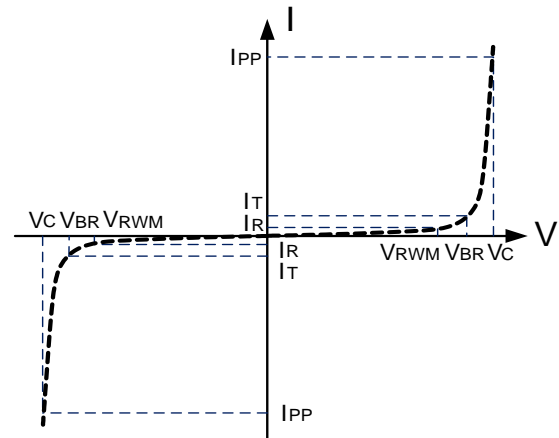
Schematic & PIN Configuration



| Absolute Maximum Rating | | | |
|--|-----------|---------------|-------|
| Rating | Symbol | Value | Units |
| Electrostatic discharge Voltage (See Note1 ,2) | V_{ESD} | 8KV (contact) | Volts |
| | | 15KV (air) | |
| Operating Temperature | T_J | -55 to + 125 | °C |
| Storage Temperature | T_{STG} | -55 to +150 | °C |

Electrical Parameters (T=25°C)

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



Electrical Characteristics

| DW05DLCF-B-01-E | | | | | | |
|---------------------------|-----------|----------------------------|---------|---------|---------|---------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | V_{RWM} | | | | 5.0 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 5.6 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=5V, T=25^\circ C$ | | | 0.1 | μA |
| Clamping Voltage | V_C | $I_{PP}=3A, t_p=8/20\mu s$ | | | 13.5 | V |
| Junction Capacitance | C_j | $V_R = 0V, f = 1MHz$ | | 3.0 | 3.5 | 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

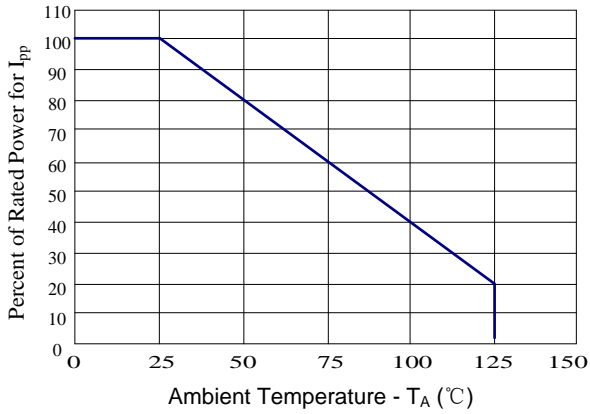


Figure 2: Insertion Loss



Figure 3: Normalized Junction Capacitance vs. Reverse Voltage

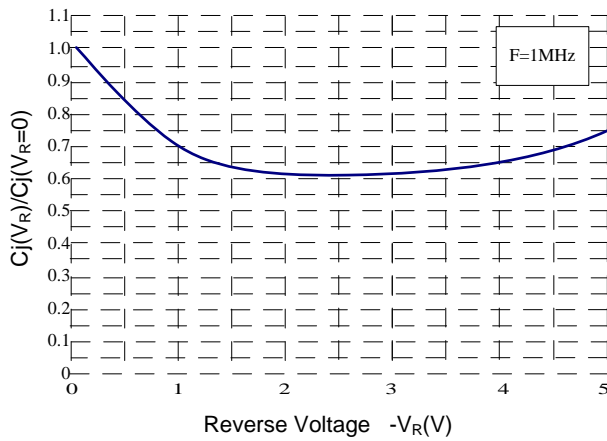


Table 1. IEC 61000-4-2 Discharge Parameters

| 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 4. IEC 61000-4-2 Waveform

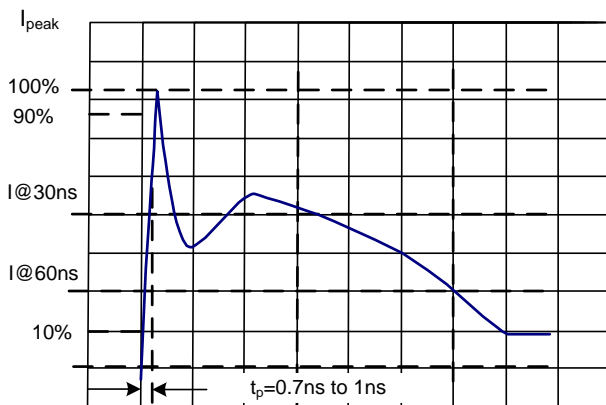
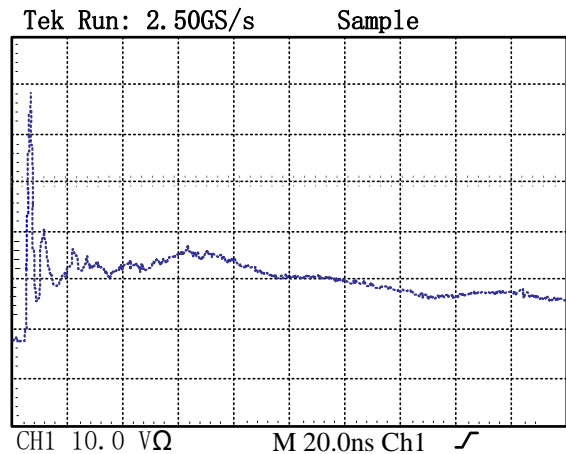
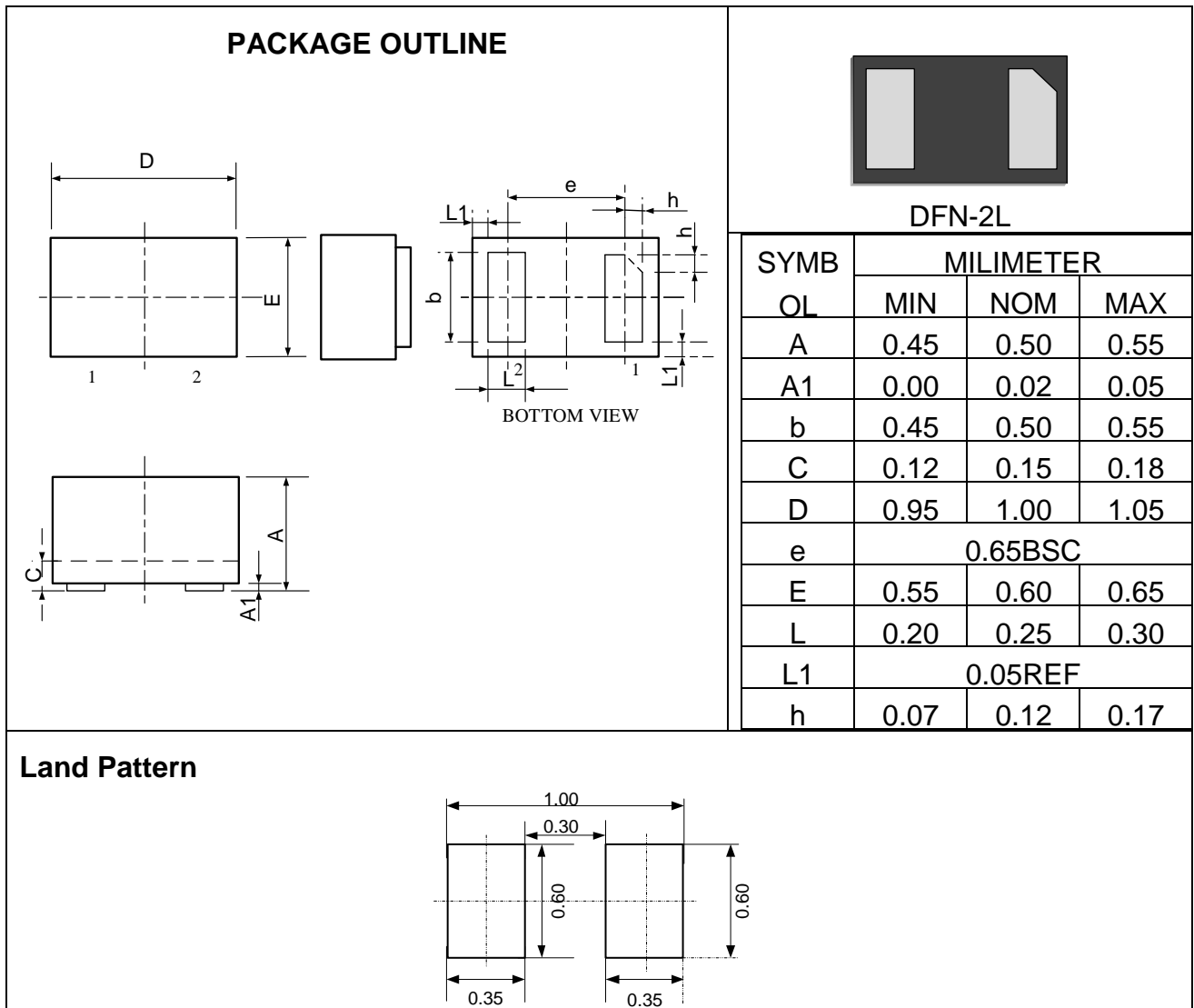


Figure 5: ESD Clamping(8kV Contact per IEC 61000-4-2)



Outline Drawing –DFN-2L



Marking Codes

| Part Number | Marking Code |
|-----------------|--------------|
| DW05DLCF-B-01-E | VB |

Package Information

Qty: 10k/Reel