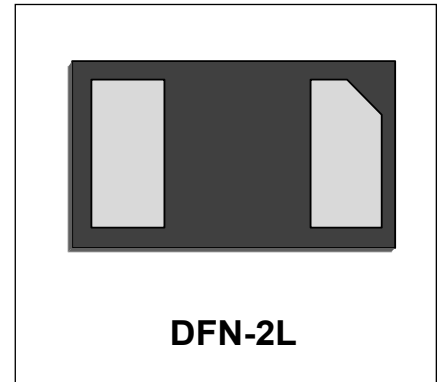




Features

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



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (air), $\pm 20\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

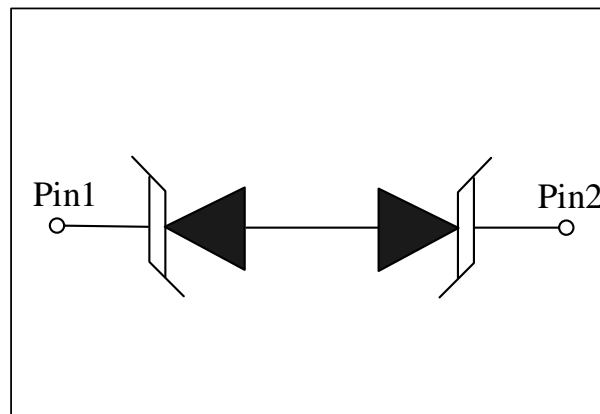
Mechanical Characteristics

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

Applications

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

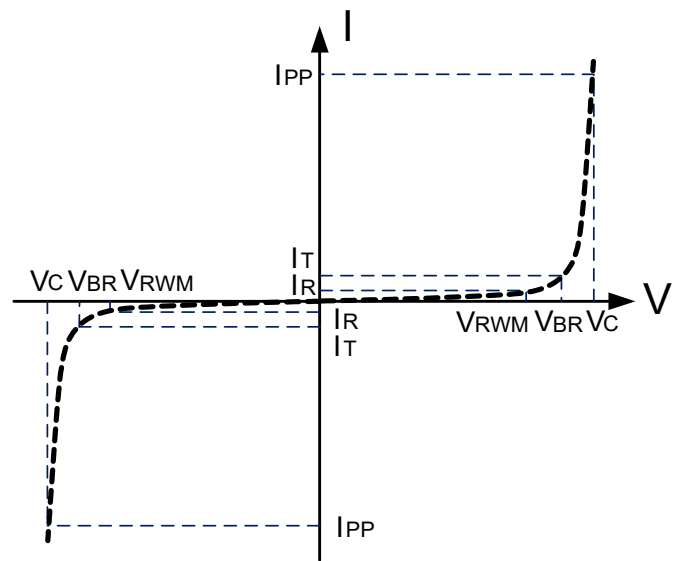
Schematic & PIN Configuration



| Absolute Maximum Rating | | | |
|--|------------------|-----------------|-------|
| Rating | Symbol | Value | Units |
| Electrostatic discharge Voltage (See Note1 ,2) | V _{ESD} | ±20KV (contact) | Volts |
| | | ±25KV (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

| DW05DLVF-B-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 | 5.8 | | | V |
| Reverse Leakage Current | I _R | V _{RWM} =5V, T=25°C | | | 0.5 | μA |
| Clamping Voltage | V _C | I _{PP} =4A, t _p =8/20μs | | 9 | 11 | V |
| Junction Capacitance | C _j | V _R = 0V, f= 1MHz | | 5.5 | 7 | 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

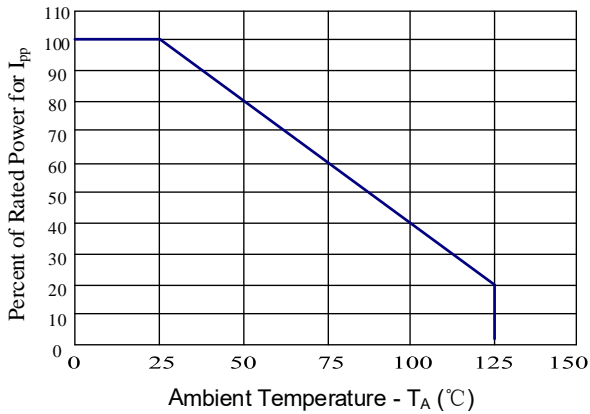


Figure 2: Insertion Loss

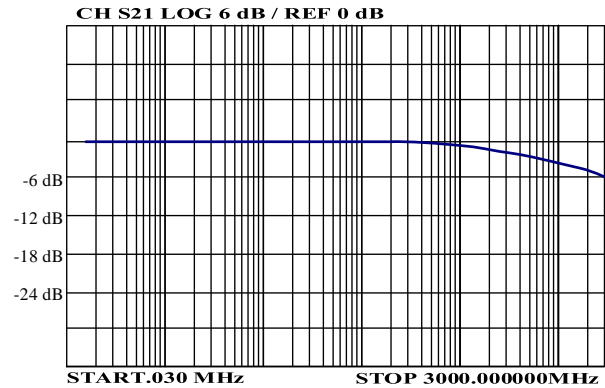


Figure 3: Normalized Junction Capacitance vs. Reverse Voltage

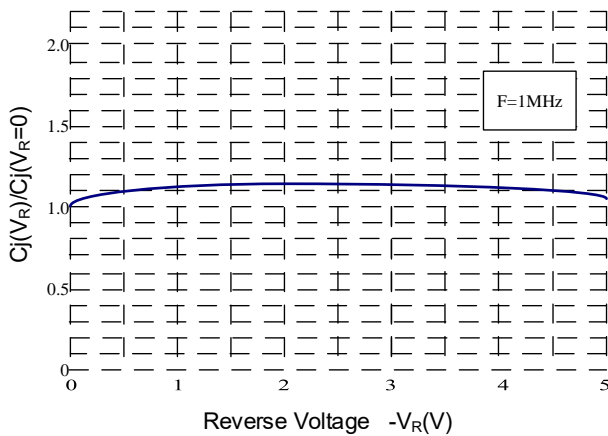


Table 1. IEC 61000-4-2 Discharge Parameters

| 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

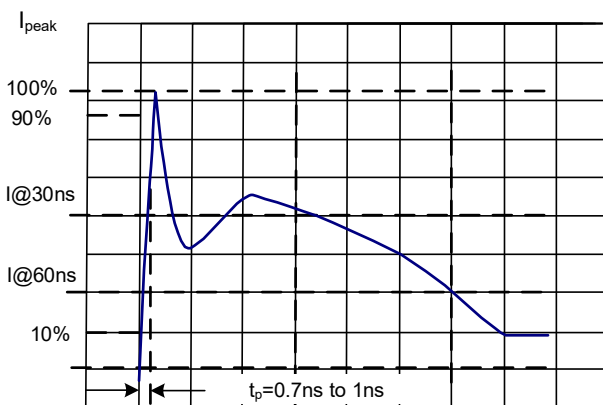
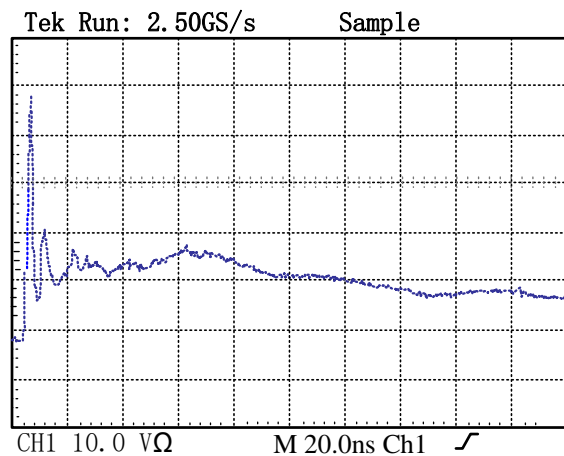
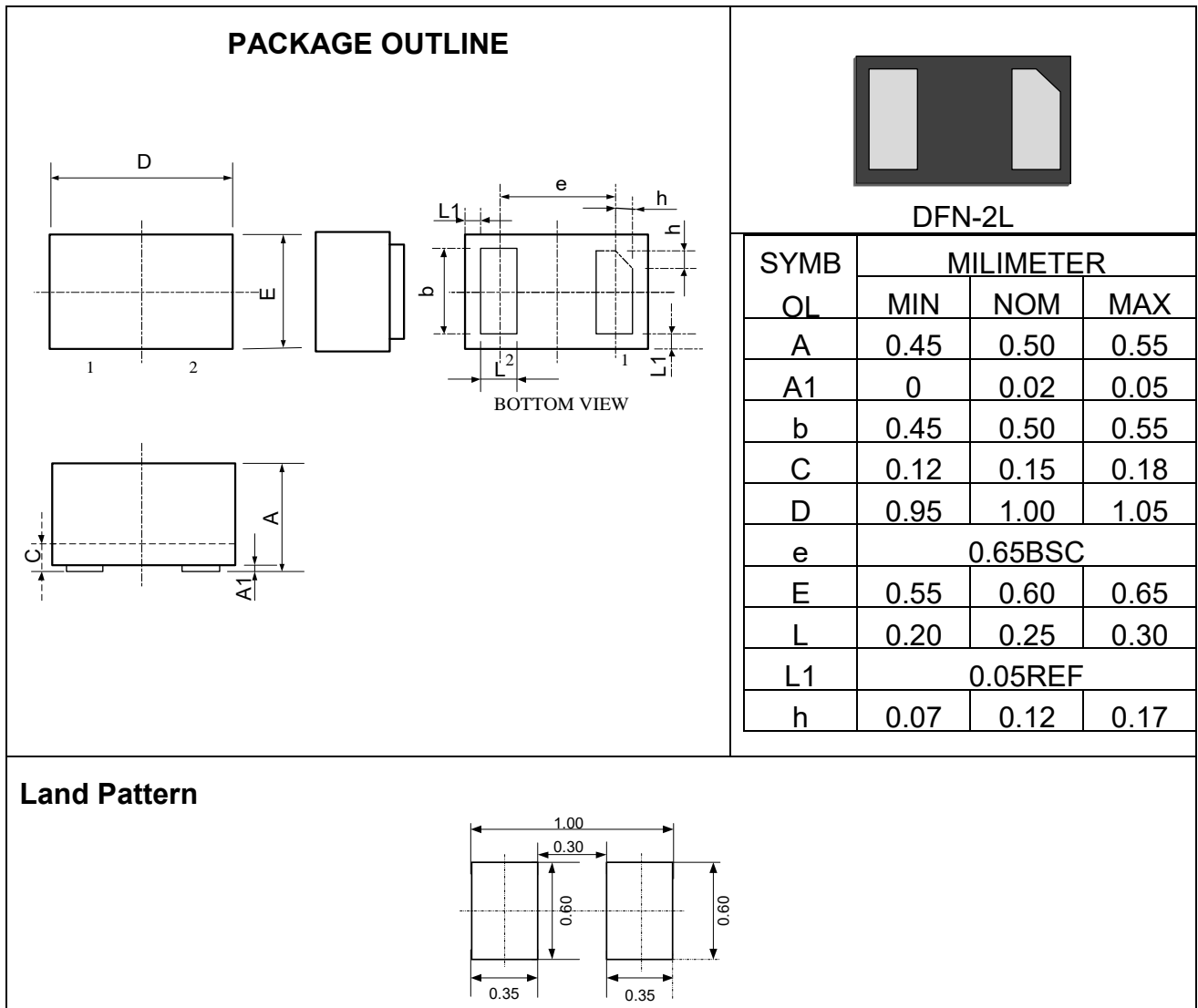


Figure 5: ESD Clamping (8kV Contact per IEC 61000-4-2)



Outline Drawing –DFN-2L



Marking Codes

| Part Number | Marking Code |
|--------------|--------------|
| DW05DLVF-B-E | V F |

Package Information

Qty: 10k/Reel