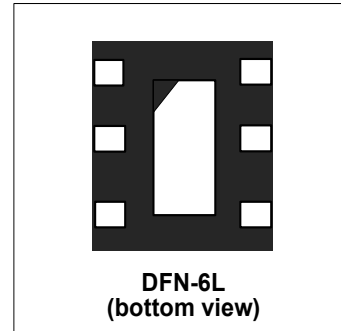




Features

- Array of surge rated diodes with internal TVS Diode
- Small package saves board space
- Protects up to four I/O lines
- Low capacitance(<0.8pF) for high speed interfaces
- Low operating voltage: 3.3V
- Low leakage current and clamping voltage
- Solid-state silicon-avalanche technology



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) ±18kV (air), ±12kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

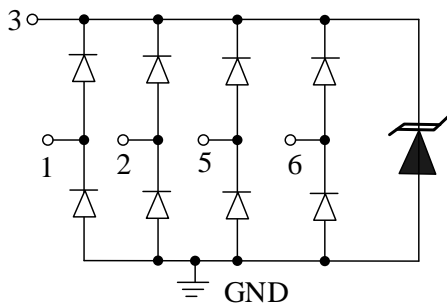
Mechanical Characteristics

- DFN-6L package
- Nominal Dimensions:1.6x1.6 x0.58mm
- Molding compound flammability rating:UL 94V-0
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

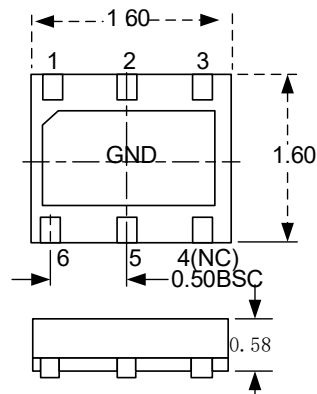
Applications

- Multi Media Card(MMC) Interfaces
- SATA Interfaces
- SD Card Interfaces
- SIM Ports
- MDDI Ports
- MPPI Ports

Circuit Diagram



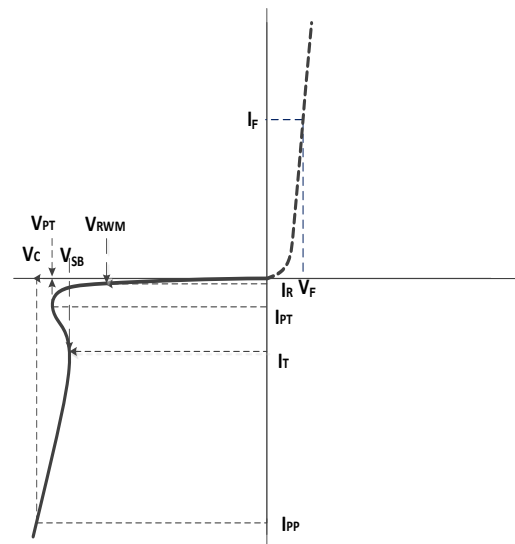
Schematic & PIN Configuration



| Absolute Maximum Rating | | | |
|---|-----------|-------------|-------------|
| Rating | Symbol | Value | Units |
| Peak Pulse Power ($t_p=8/20\mu s$) | P_{PP} | 100 | Watts |
| Peak Pulse Current ($t_p=8/20\mu s$) | I_{PP} | 5 | A |
| ESD per IEC 61000-4-2(Air) ESD per IEC 6100-4-2(Contact) | V_{ESD} | 18 12 | KV |
| Operating Temperature | T_J | -55 to +125 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55 to +150 | $^{\circ}C$ |

Electrical Parameters (T=25 $^{\circ}C$)

| Symbol | Parameter |
|-----------|--|
| I_{PP} | Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{SB} | Snapback Voltage @ I_T |
| I_T | Test Current |
| V_{PT} | Punch-through Breakdown Voltage @ I_{PT} |
| I_{PT} | Punch-through Current |



Electrical Characteristics

| DW3.3-4RP-E | | | | | | |
|---------------------------|-----------|--|---------|---------|---------|---------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | V_{RWM} | Pin 3 to GND | | | 3.3 | V |
| Punch-Through Voltage | V_{PT} | $I_{PT}=2\mu A$ | 3.5 | | | V |
| Snap-Back Voltage | V_{SB} | $I_T=50mA$ | 2.8 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=3.3V, T=25^{\circ}C$ | | | 1 | μA |
| Clamping Voltage | V_C | $I_{PP}=1A, t_p=8/20\mu s$ Between I/O To GND | | | 7.5 | V |
| Clamping Voltage | V_C | $I_{PP}=5A, t_p=8/20\mu s$ Between I/O To GND | | | 16 | V |
| Junction Capacitance | C_j | Between I/O pins and Ground $V_R=0V, f=1MHz$ | | | 0.8 | pF |
| | | Between I/O pins $V_R=0V,$ $f=1MHz$ | | 0.4 | | pF |

Typical Characteristics

Figure 1: Peak Pulse Power Vs Pulse Time

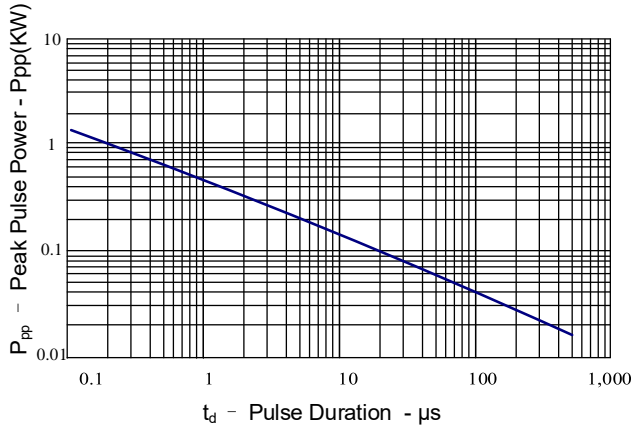


Figure 2: Power Derating Curve

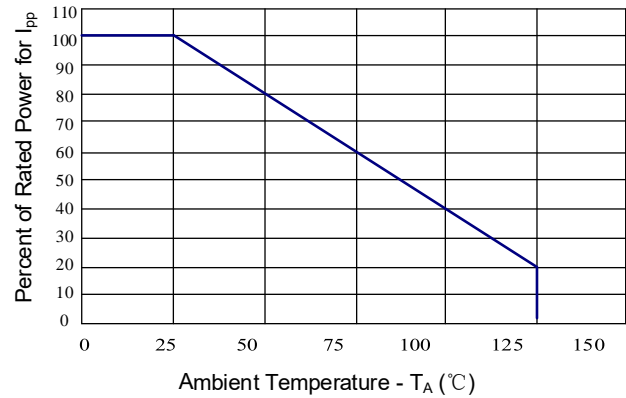


Figure 3: Pulse Waveform

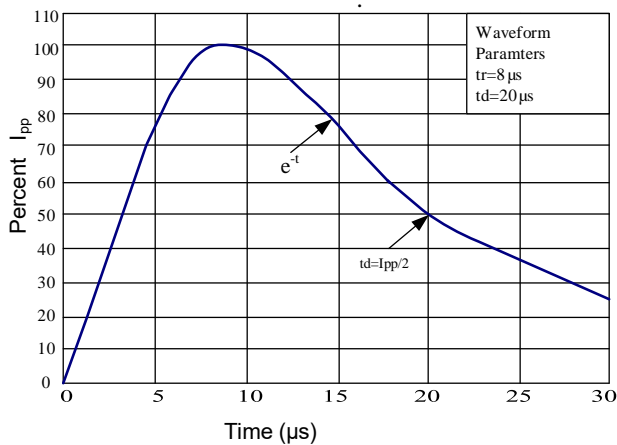


Figure 4: Clamping Voltage vs. Peak Pulse Current

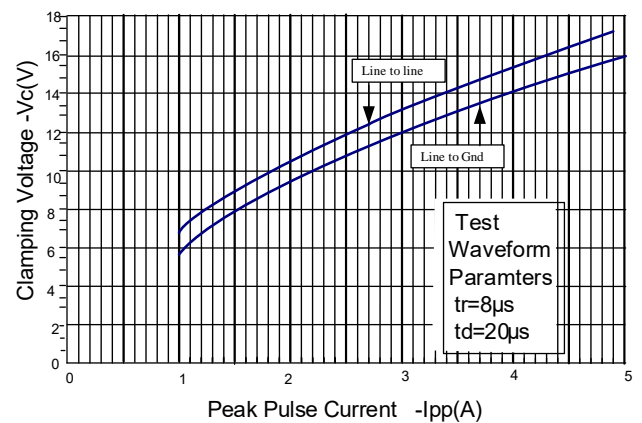


Figure 5: Forward Voltage vs. Forward Current

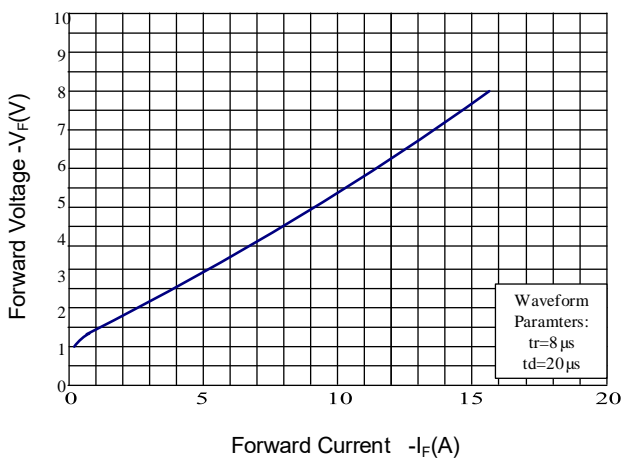
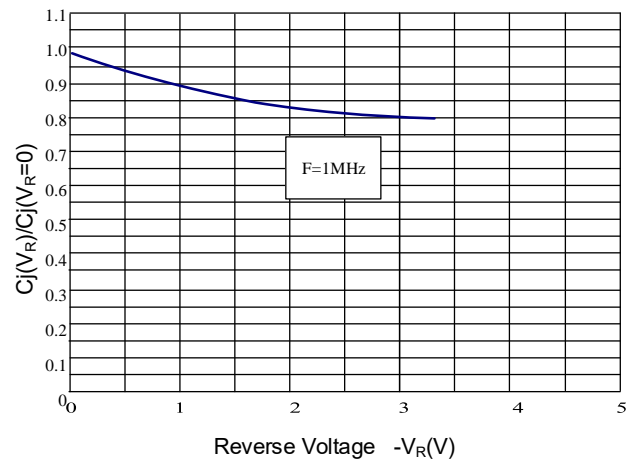
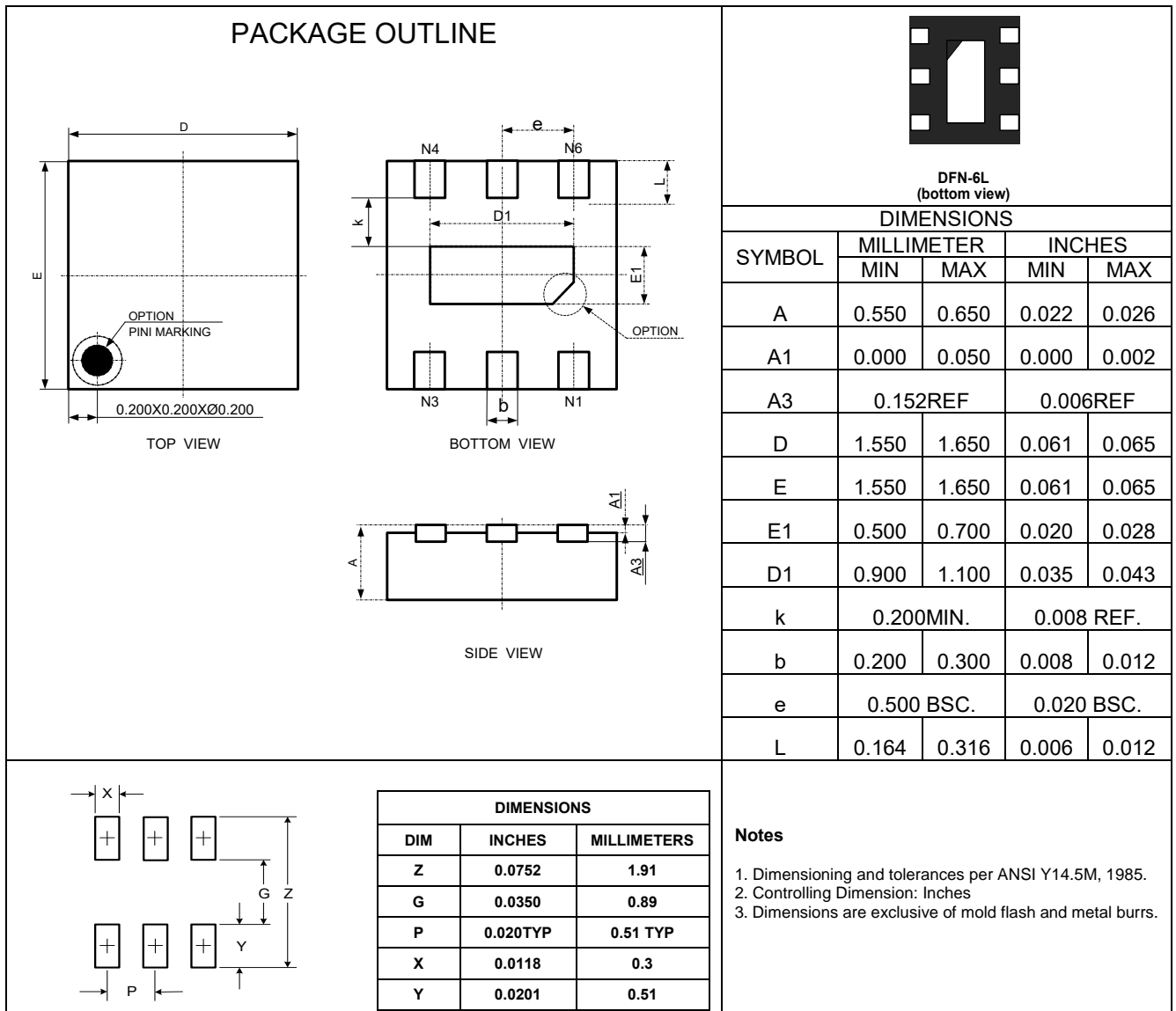


Figure 6: Capacitance vs. Reverse Voltage



Outline Drawing –DFN-6L



Marking Codes

| | |
|--------------|-------------|
| Part Number | DW3.3-4RP-E |
| Marking Code | 4RP |

Package Information

Qty: 3k/Reel