

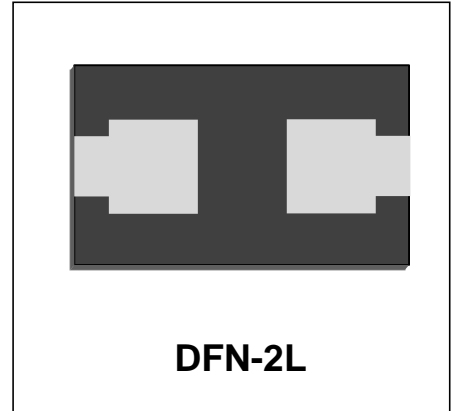


Features

- Small Body Outline Dimensions:
- Protects one I/O or power line
- Working Voltage: 12 V
- Low Leakage Current
- Response Time is Typically < 1 ns

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 7A (8/20 μs)



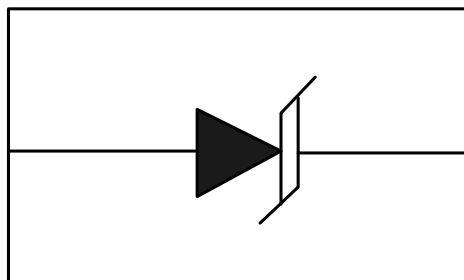
Mechanical Characteristics

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

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 Players

Schematic & PIN Configuration

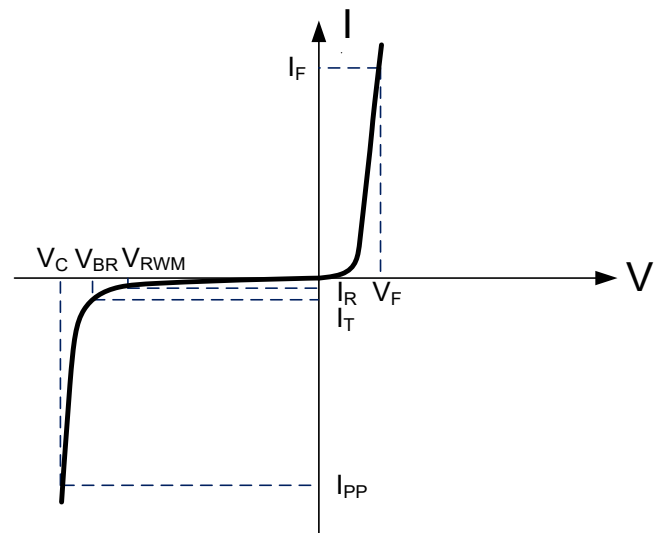


Unidirectional

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	200	Watts
Electrostatic discharge Voltage (See Note1 ,2)	V_{ESD}	30KV (contact)	volts
		30KV (air)	
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_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

DW12DF-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				12.0	V
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			7	A
Clamping Voltage	V_C	$I_{PP} = 7A, t_p = 8/20\mu s$		23	25	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	13.3			V
Reverse Leakage Current	I_R	$V_{RWM} = 12V, T = 25^{\circ}C$			1	μA
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		34	36	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

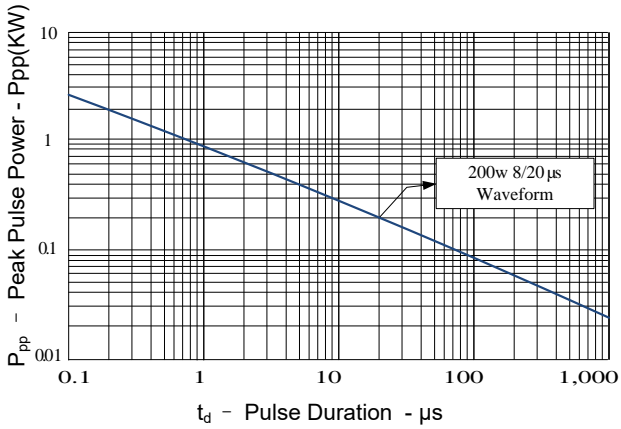


Figure 2: Power Derating Curve

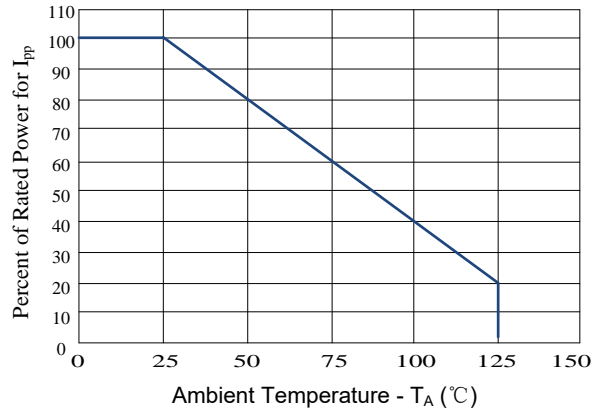


Figure 3: Clamping Voltage vs. Peak Pulse Current

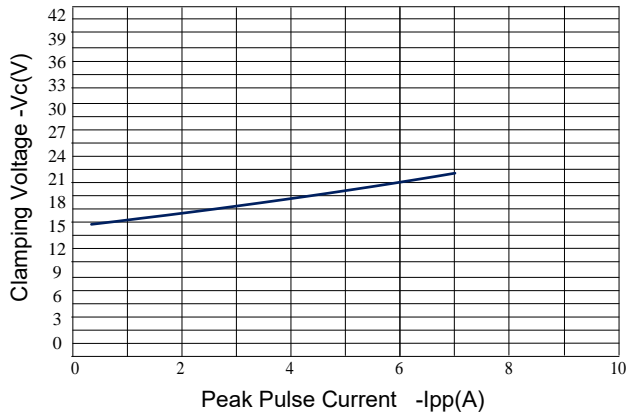


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

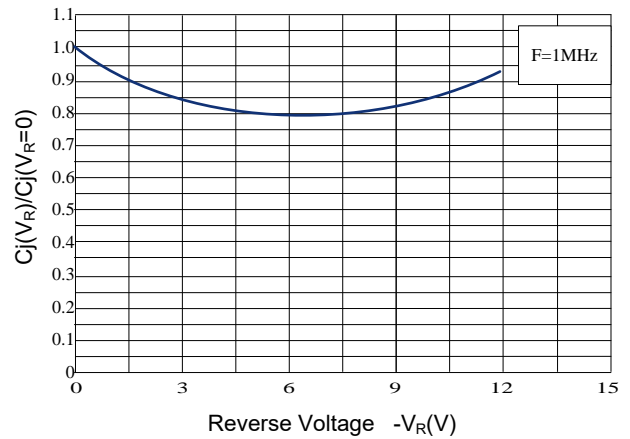


Figure 5: 8/20μs Pulse Waveform

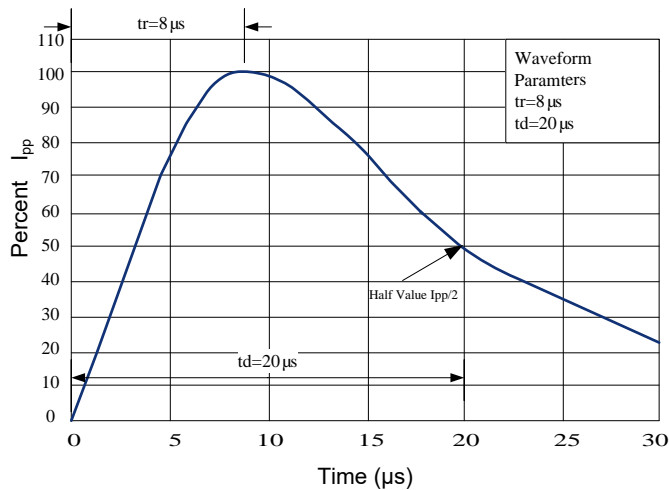
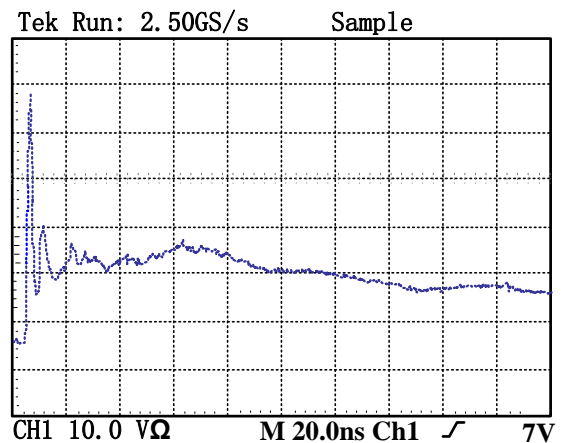
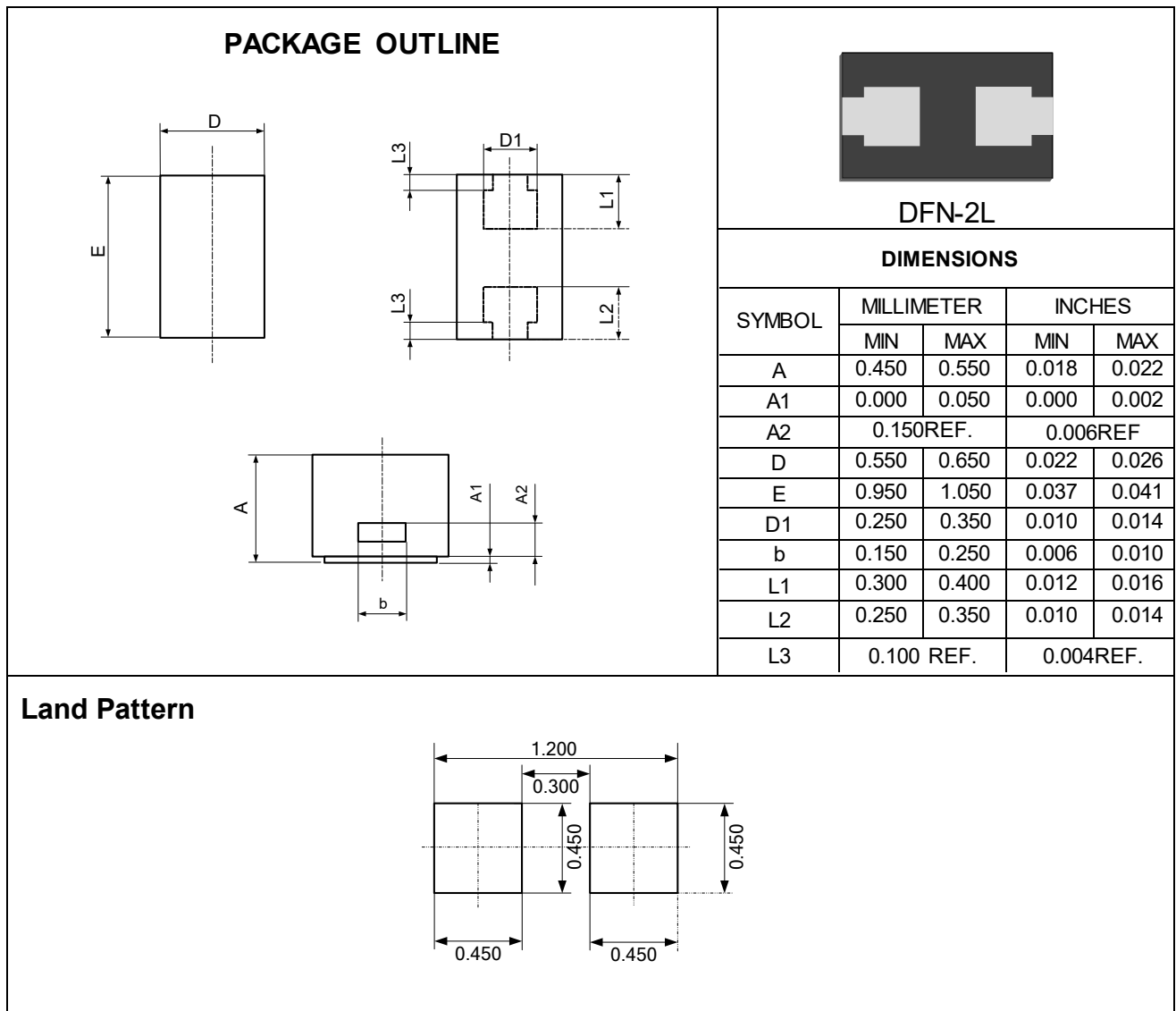


Figure 6: ESD Clamping (8kV Contact per IEC 61000-4-2)



Outline Drawing –DFN-2L



Marking Codes

Part Number	DW12DF-E	Marking Code	PA
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Package Information

Qty: 10k/Reel