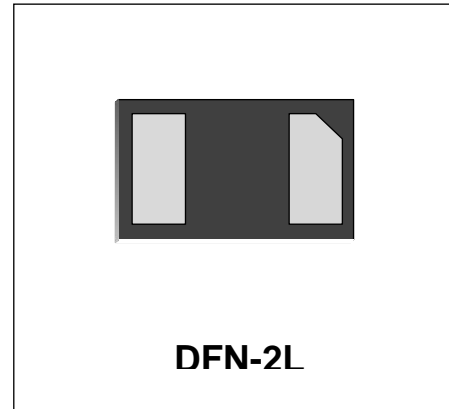


### Features

- Small Body Outline Dimensions:  
0.039"x 0.024"(1.0 mm x 0.60 mm)
- Protects high speed signal line
- Low Clamping Voltage
- Ultra Low Capacitance:0.35pF
- Working Voltage: 5 V
- Low Leakage Current
- Response Time is Typically < 1 ns



### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 20$ kV (air),  $\pm 20$ kV (contact)
- IEC 61000-4-5 4.5A (8/20us)

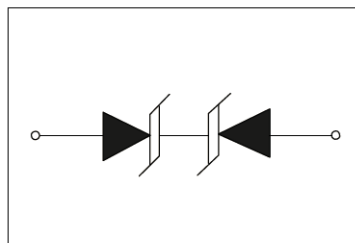
### Mechanical Characteristics

- DFN-2L package
- Molding compound flammability rating:  
UL 94V-0
- Marking: 5F
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant
- MSD Level:2

### Applications

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

### Schematic & PIN Configuration

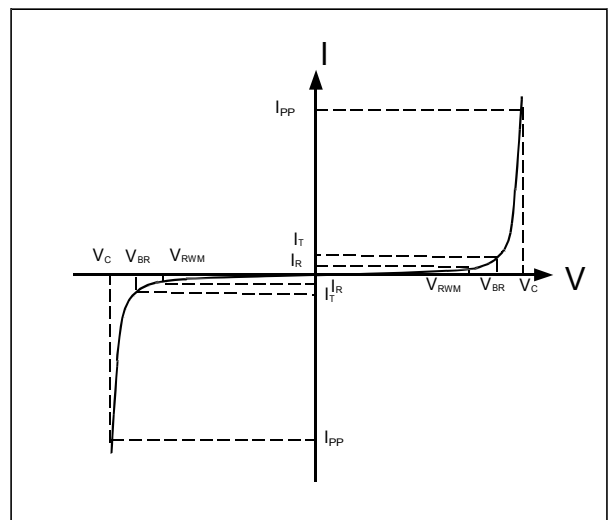


DFN-2L (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Electrostatic discharge Voltage (See Note1 ,2)	V <sub>ESD</sub>	20KV (contact)	Volts
		20KV (air)	
Peak Pulse Power (8/20uS)	P <sub>PP</sub>	100	W
Rated Peak Pulse Current (8/20uS)	I <sub>PPM</sub>	4.5	A
Operating Temperature	T <sub>J</sub>	-55 to + 125	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C

### Electrical Parameters (T=25°C)

Symbol	Parameter
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>



### Electrical Characteristics

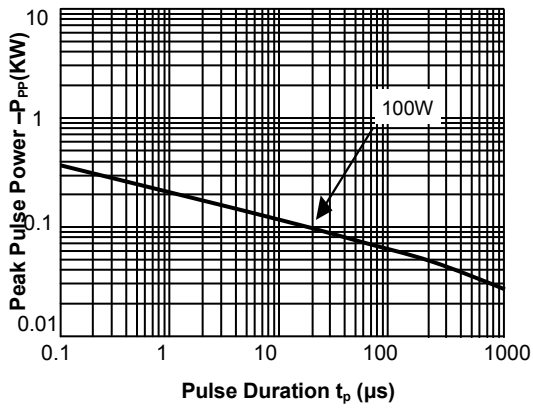
MDFN2C051UZ						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V <sub>RWM</sub>				5.0	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6.0	8.5	9.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V, T=25°C			0.1	μA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>p</sub> =8/20μs			11	V
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> = 0V, f= 1MHz		0.35	0.45	pF

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

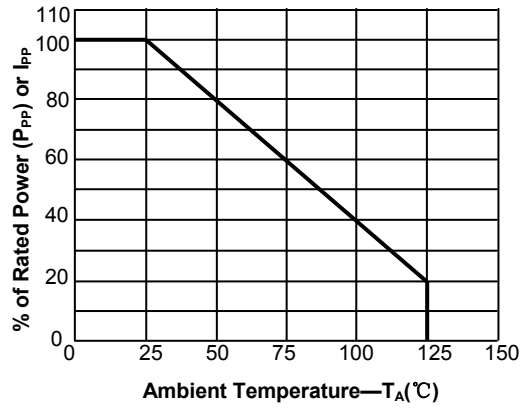
**Note2:** ESD tests Setup see Figure 5.

### Typical Characteristics

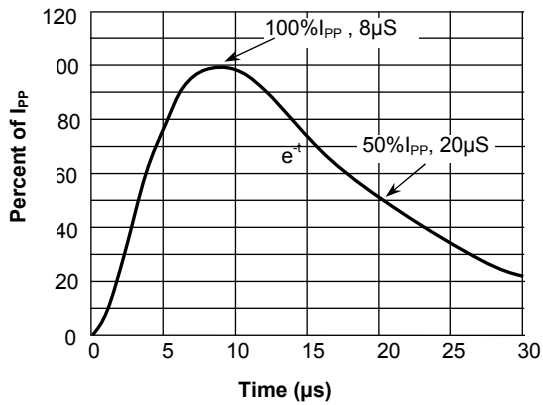
**Fig.1 Peak Pulse Power Rating Curve**



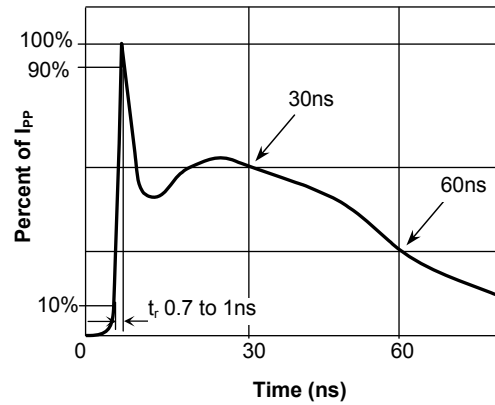
**Fig.2 Pulse Derating Curve**



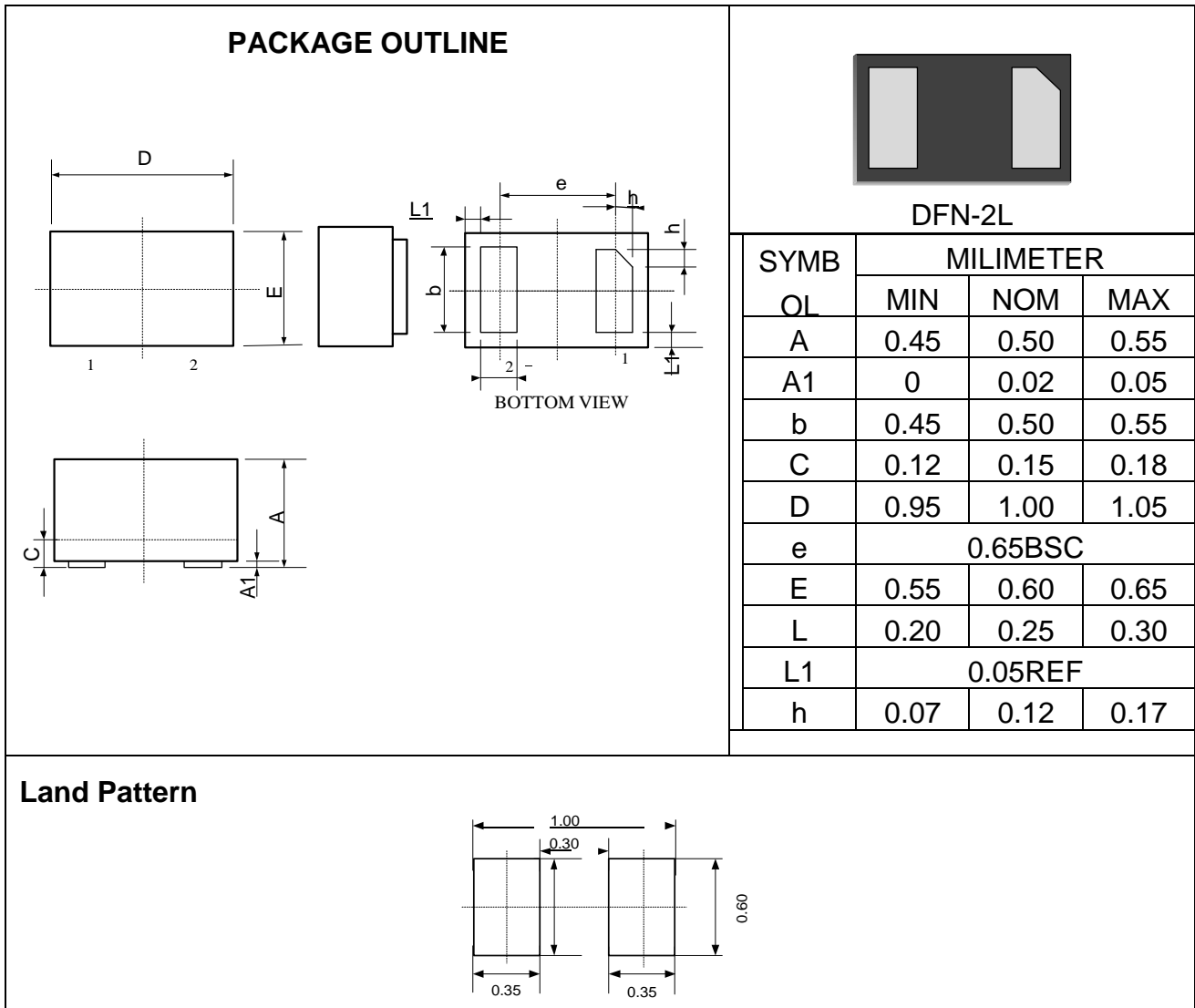
**Fig.3 Pulse Waveform-8/20 $\mu s$**



**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



## Outline Drawing –DFN-2L



## Order Information

PN#	Package	Carrier	Quantity	HSF Status
MDFN2C051UZ	DFN-2L	Tape & Reel	10,000pcs/Reel	RoHS compliant

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