



Features

- 110 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Small Body Outline Dimensions
- Protects one I/O or Power Line
- Low Clamping Voltage
- Working Voltage: 3.3V
- Low Leakage Current

IEC COMPATIBILITY (EN61000-4)

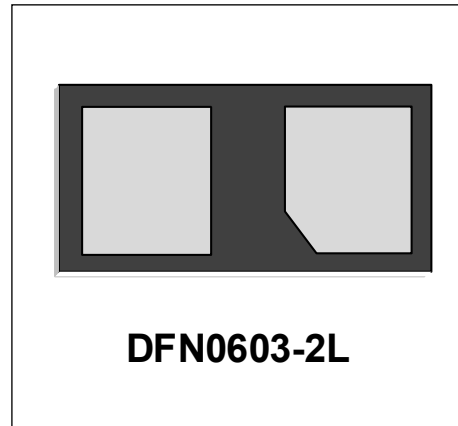
- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 10A (8/20 μs)

Mechanical Characteristics

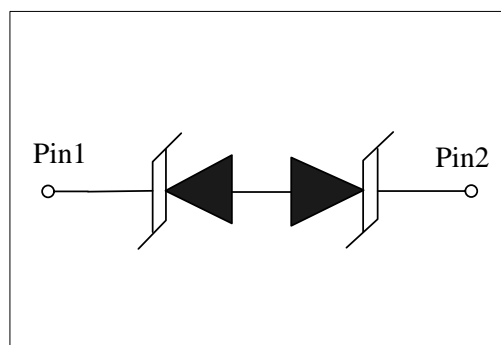
- DFN0603-2L package
- Marking : Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

Applications

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



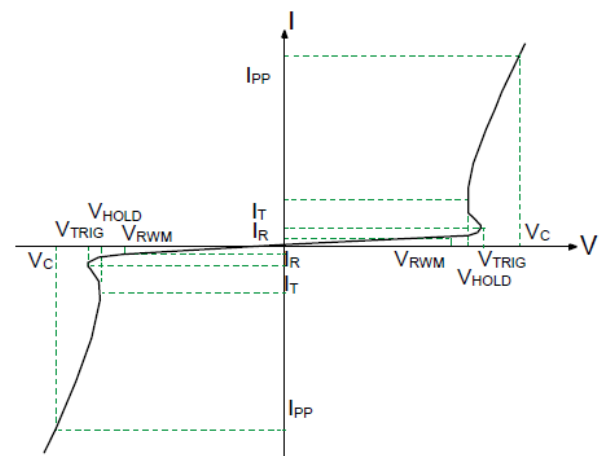
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	110	W
Peak Pulse Current($t_p=8/20\mu s$)	I_{pp}	10	A
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

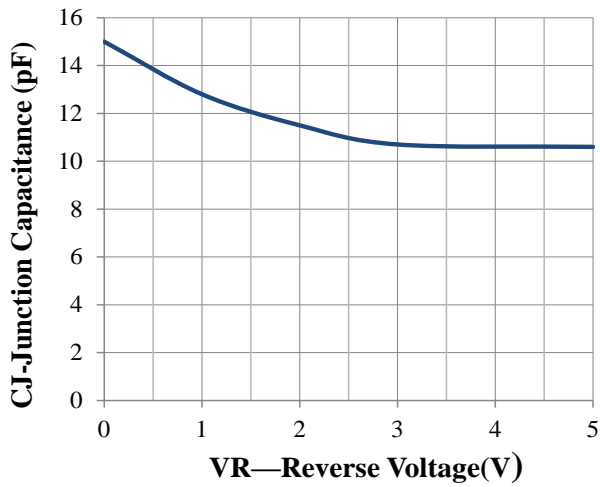
Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



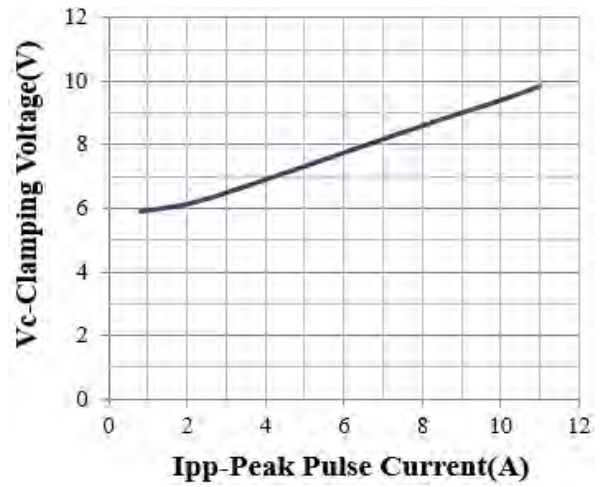
Electrical Characteristics

MDFN1C031VW						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.5	4.2	5	V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V, T=25^\circ C$			200	nA
Clamping Voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$			6.0	V
Clamping Voltage	V_C	$I_{pp}=10A, t_p=8/20\mu s$			11	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$		15	18	pF

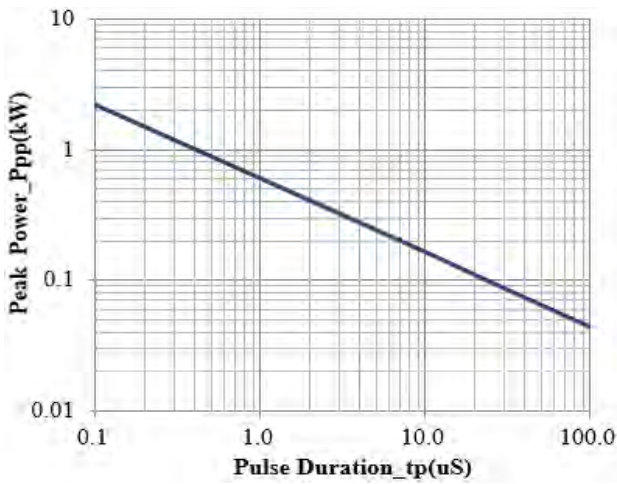
Typical Characteristics



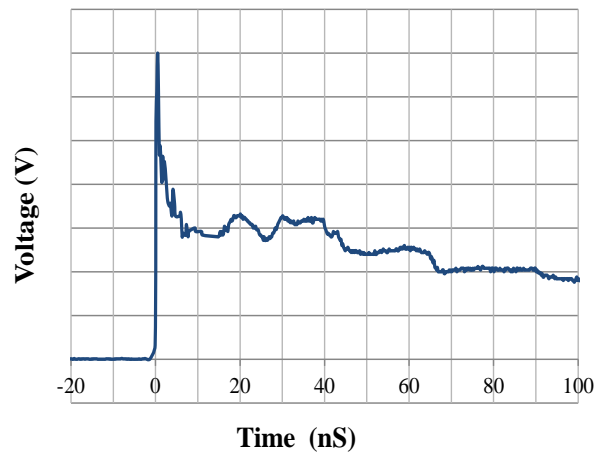
Junction Capacitance vs. Reverse Voltage



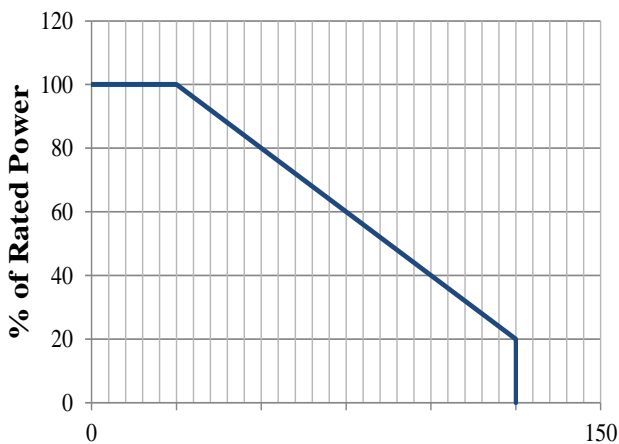
Clamping Voltage vs. Peak Pulse Current



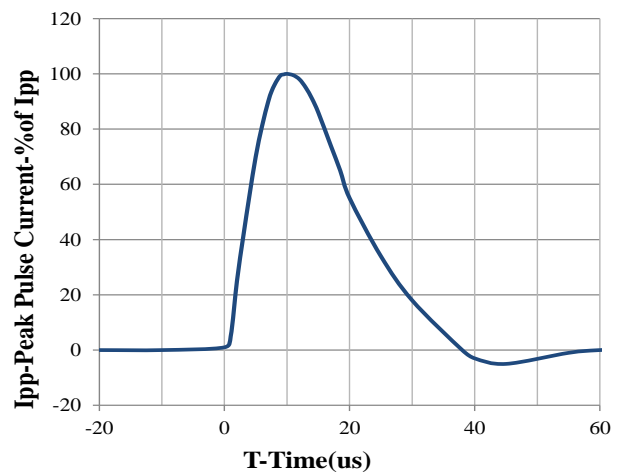
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

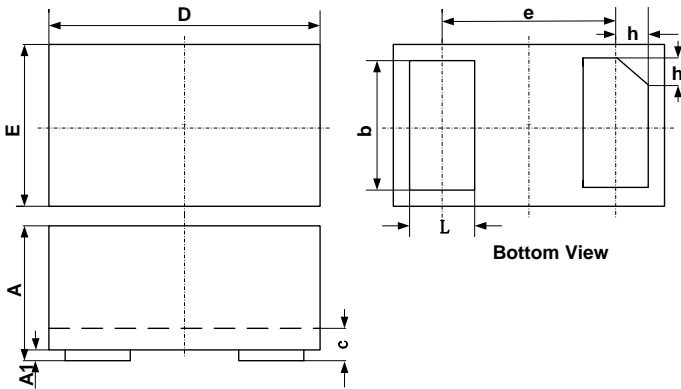


Power Derating Curve

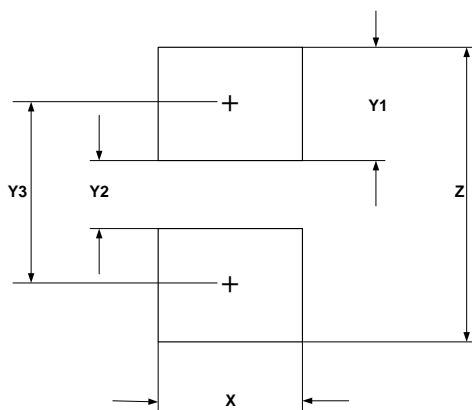


8 X 20us Pulse Waveform

Outline Drawing –DFN0603-2L



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230	0.300	0.330
A1	0.000	0.020	0.050
b	0.215	0.245	0.275
c	0.120	0.150	0.180
D	0.550	0.600	0.650
e	0.355 BSC		
E	0.250	0.300	0.350
L	0.160	0.190	0.220
h	0.079 BSC		



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.30	0.012
Y1	0.25	0.010
Y2	0.15	0.006
Y3	0.40	0.016
Z	0.65	0.026

Marking Codes

Part Number	Marking Code
MDFN1C031VA	

Package Information

Device	Package	Carrier	Quantity	HSF Status
MDFN1C031VA	DFN0603-2L	Tape & Reel	10000pcs / Reel	RoHS compliant