

## Features

- 100 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: 5.0V
- Low Leakage Current

## IEC COMPATIBILITY (EN61000-4)

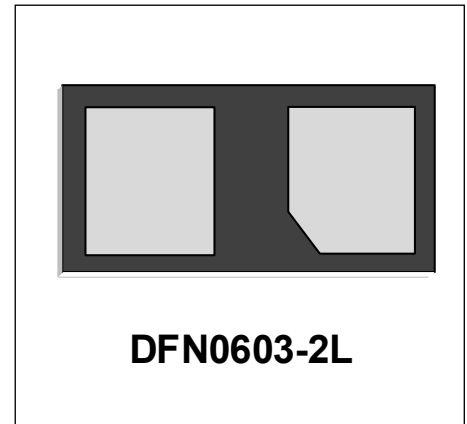
- IEC 61000-4-2 (ESD)  $\pm 30kV$  (air),  $\pm 30kV$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 10A (8/20 $\mu s$ )

## Mechanical Characteristics

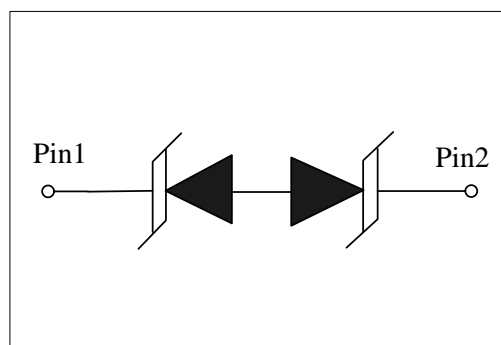
- DFN0603-2L package
- Marking : Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

## Applications

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



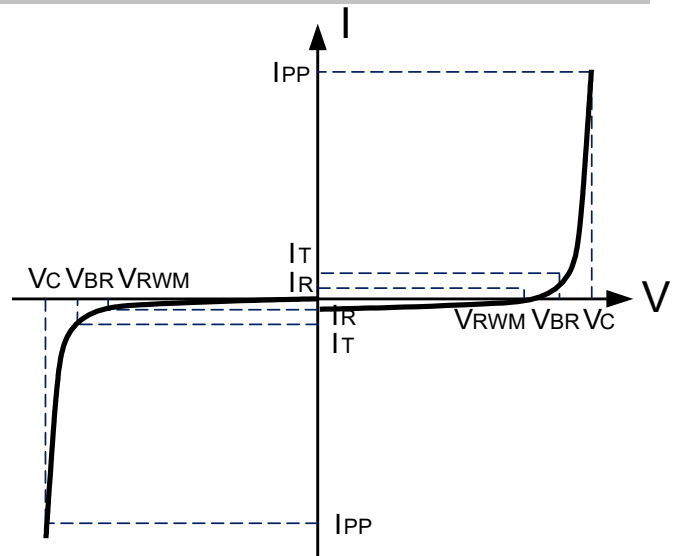
## Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	100	W
Peak Pulse Current( $t_p=8/20\mu s$ )	$I_{pp}$	8	A
Operating Temperature	$T_J$	-55 to + 125	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C

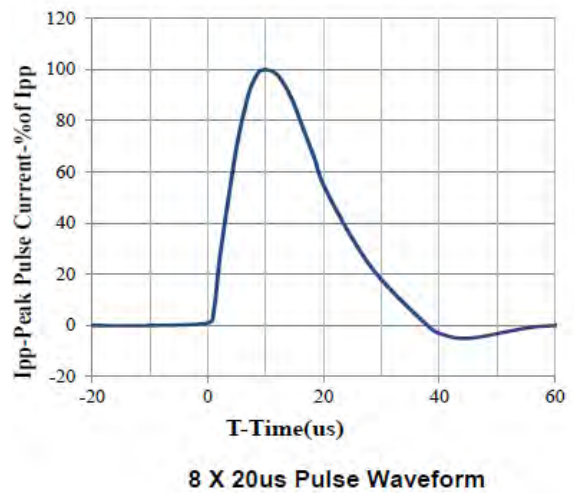
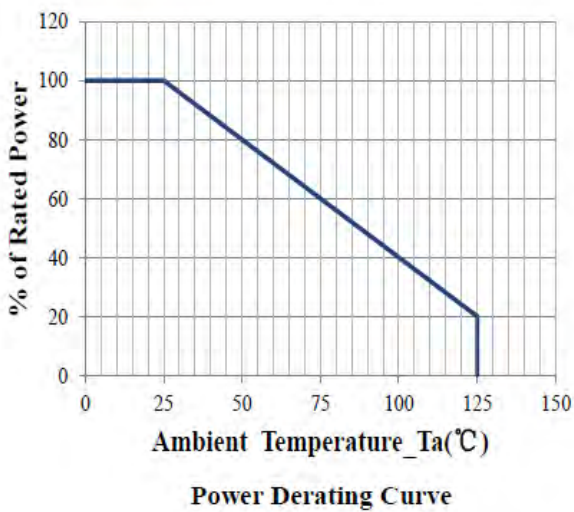
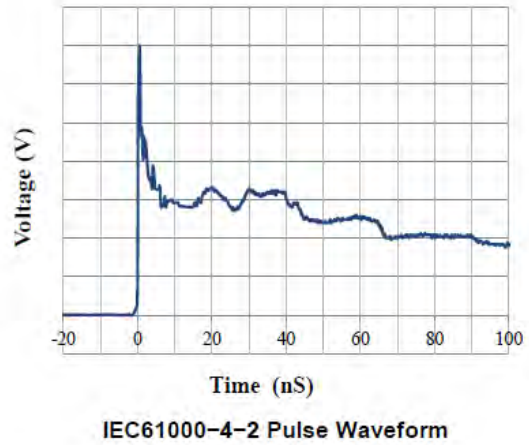
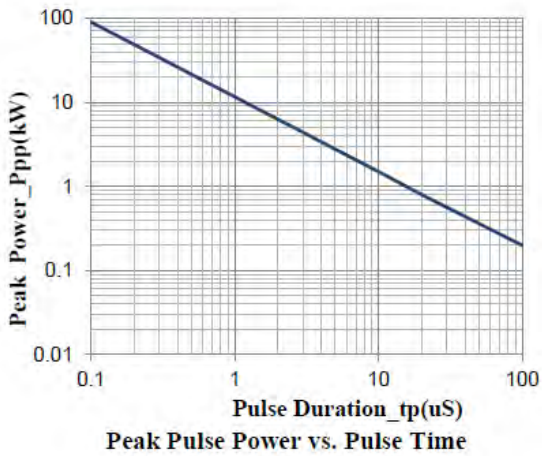
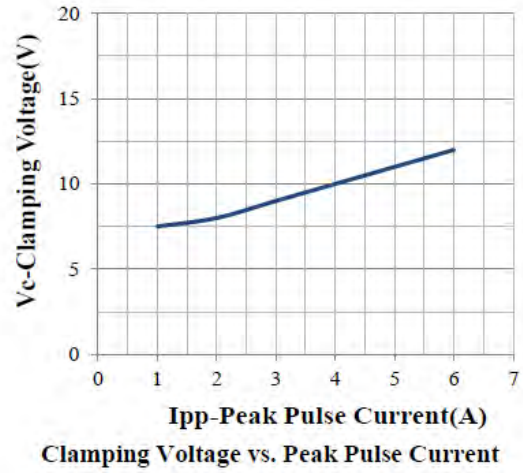
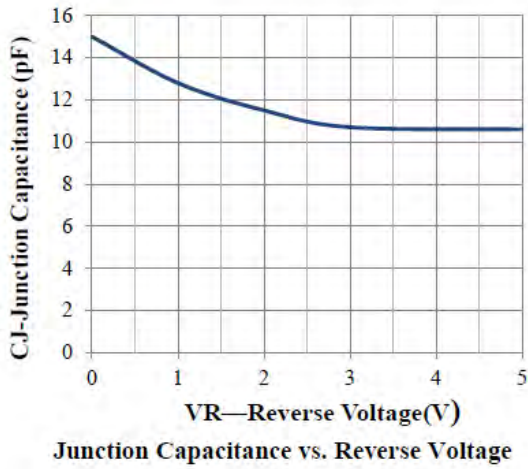
**Electrical Parameters (T=25°C)**

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	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25^\circ C$			500	nA
Clamping Voltage	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$			7.5	V
	$V_C$	$I_{PP}=8A, t_p=8/20\mu s$			12.5	V
Junction Capacitance	$C_j$	$V_R=0V, f=1MHz$		15	18	pF

**Typical Characteristics**



**Outline Drawing –DFN0603-2L**

**PACKAGE OUTLINE**

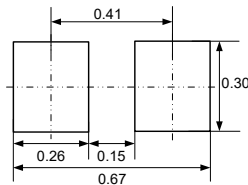
Bottom View                      Top View

Side View

**DFN0603-2L**

SYMBOL	MILIMETER			Dimension In Inches		
	NOM	MIN	MAX	NOM	MIN	MAX
A	--	0.280	0.320	--	0.011	0.013
A1	--	--	0.050	--	--	0.002
D	0.610	0.570	0.630	0.024	0.022	0.025
E	0.310	0.270	0.330	0.012	0.011	0.013
b	0.180	0.155	0.205	0.007	0.006	0.008
L	0.240	0.200	0.260	0.009	0.008	0.010
h	--	0.050	0.100	--	0.002	0.004
L1	0.035REF			0.001REF		
L2	0.035REF			0.001REF		
e	0.360BSC			0.014BSC		

**Land Pattern**



**Marking Codes**

Part Number	Marking Code
MDFN1C051VA	

**Package Information**

Device	Package	Carrier	Quantity	HSF Status
MDFN1C051VA	DFN0603-2L	Tape & Reel	10000pcs / Reel	RoHS compliant