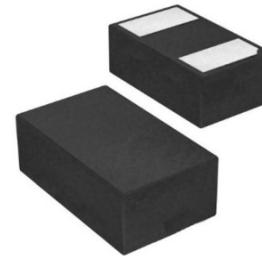


Features

- Ultra small package: 1.0x0.6x0.5mm
- Ultra low leakage: nA level
- Low clamping voltage
- 2-pin leadless package
- RoHS compliant



IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (air),
 $\pm 25\text{kV}$ (contact)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)

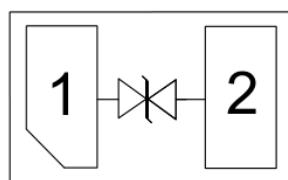
Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Industrial Equipment

Mechanical Characteristics

- Package: DFN1006-2
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS/WEEE Compliant
- MSD Level: 2

Schematic and PIN Configuration

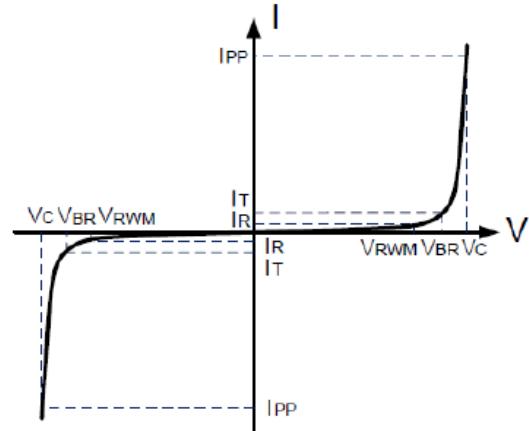


Absolute Maximum Ratings (TA=25°C unless otherwise specified)

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	200	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	5	A
ESD per IEC 61000-4-2(Air)	V_{ESD}	± 25	kV
ESD per IEC 61000-4-2(contact)		± 25	
Operating Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Portion Electronics Parameter

Symbol	Parameter
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_C

**Electrical Characteristics (TA=25°C unless otherwise specified)**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				18	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	20			V
Reverse Leakage Current	I_R	$V_{RWM} = 18V$			0.5	uA
ESD Clamping Voltage	V_C	$IP_{PP}=4A, t_p=0.2/100ns(TLP)$		31.5		V
		$IP_{PP}=16A, t_p=0.2/100ns(TLP)$		37.5		V
Clamping Voltage	V_C	$IP_{PP}=5A, t_p=8/20\mu s$		36	40	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		12	16	pF

Typical Characteristics(TA=25°C unless otherwise Specified)

Figure 1: Peak Pulse Power Vs Pulse Time

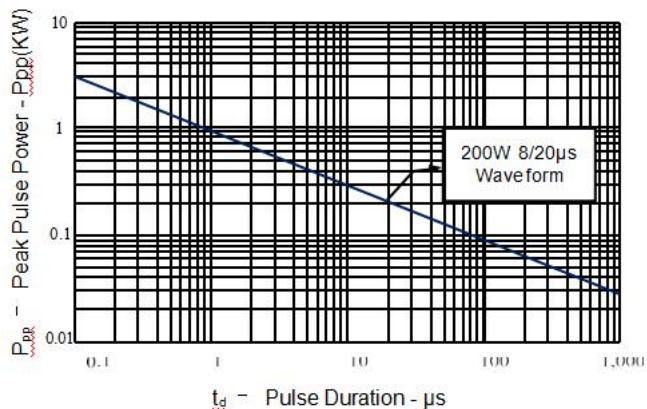


Figure 2: Power Derating Curve

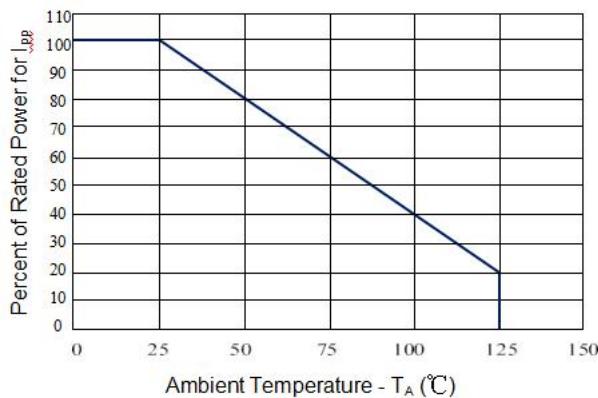


Figure 3: Clamping Voltage vs. Peak Pulse Current

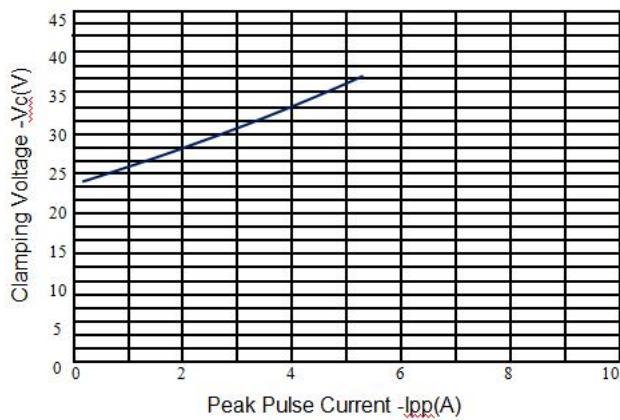


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage |

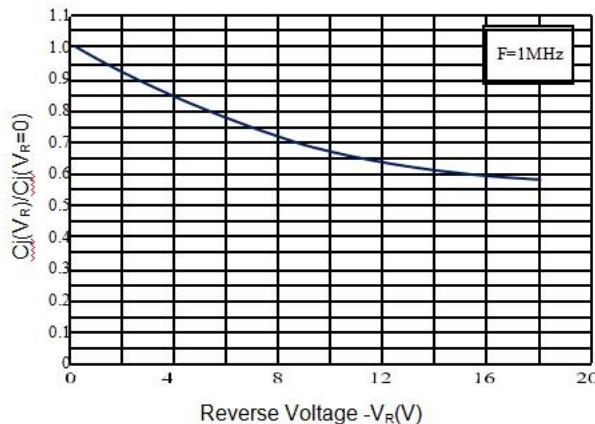


Figure 5: TLP Positive I-V Curve

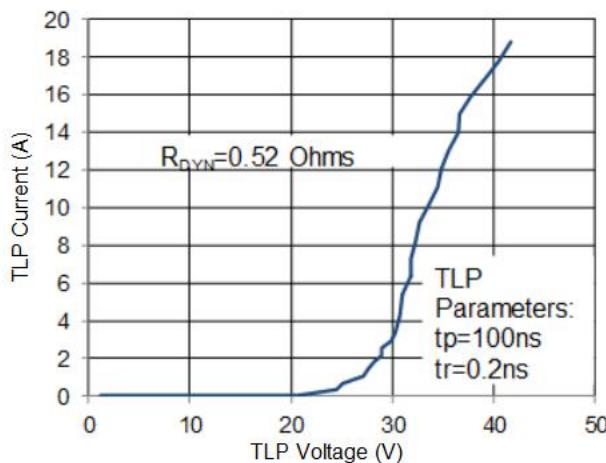
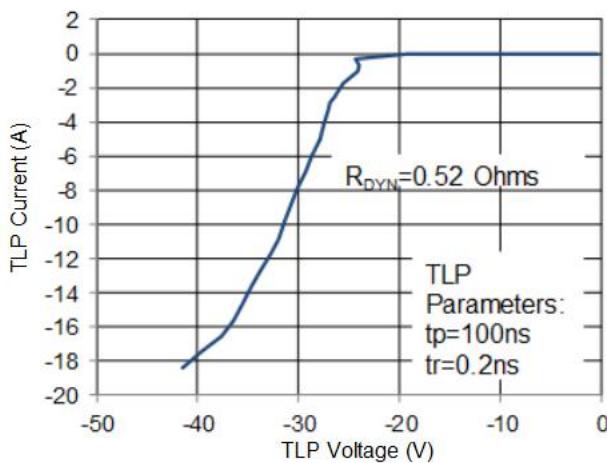
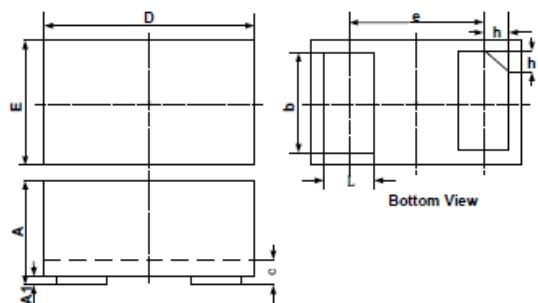


Figure 6: TLP Negative I-V Curve

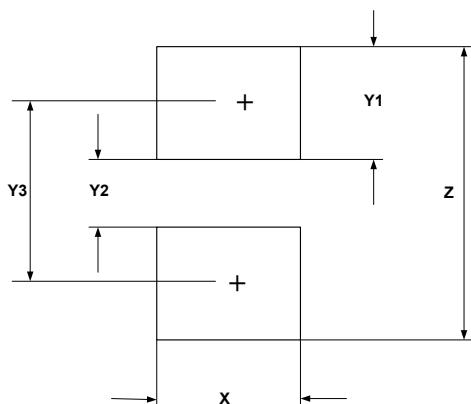


DFN1006-2 Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.016	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052

Order Information

Order code	Package	Packaging	Reel Size
MDFN2C181VS	DFN1006-2	10000/Tape & Reel	7 inch

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[SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD105-B1-02EL](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)
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