

ULTRA LOW CAPACITANCE BIDIRECTIONAL TVS DIODE

Features

- 90 Watts Peak Pulse Power per Line (tp=8/20µs)
- Protects One Bidirectional I/O Line
- Low clamping voltage
- Working voltages : 5.0V
- Low leakage current

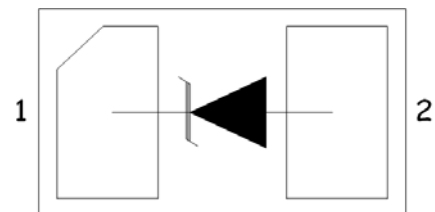
Dimensions DFN1006DN



Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- Pagers

Pin Configuration



Mechanical Characteristics

- DFN1006DN (1.0x0.6x0.5mm) Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 0.5 Milligrams (Approximate)
- Quantity Per Reel : 12,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

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

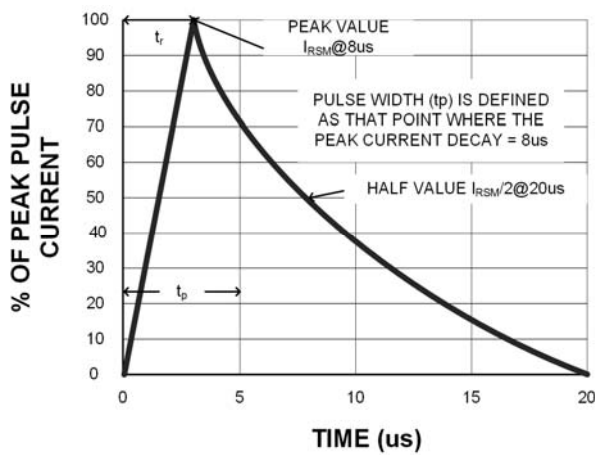
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppp	60	W
ESD per IEC 61000-4-2 (Air)	VESD	± 15	Kv
ESD per IEC 61000-4-2 (Contact)		± 25	
Operating Temperature Range	TJ	-55 to +150	°C
Storage Temperature Range	TSTJ	-55 to +150	°C

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise specified)

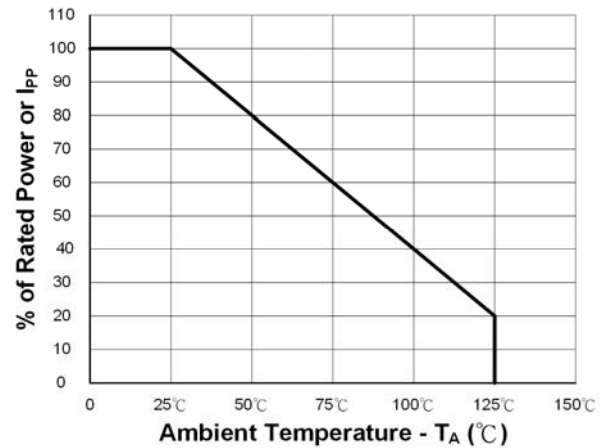
Part Number	Device Marking	V_{RWM} (V)	V_{BR} (V)	I_T (mA)	V_C @1A	V_C		I_R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
ULC0501DN	J	5	6	1	12	25	2.5	1	0.5

Characteristic Curves

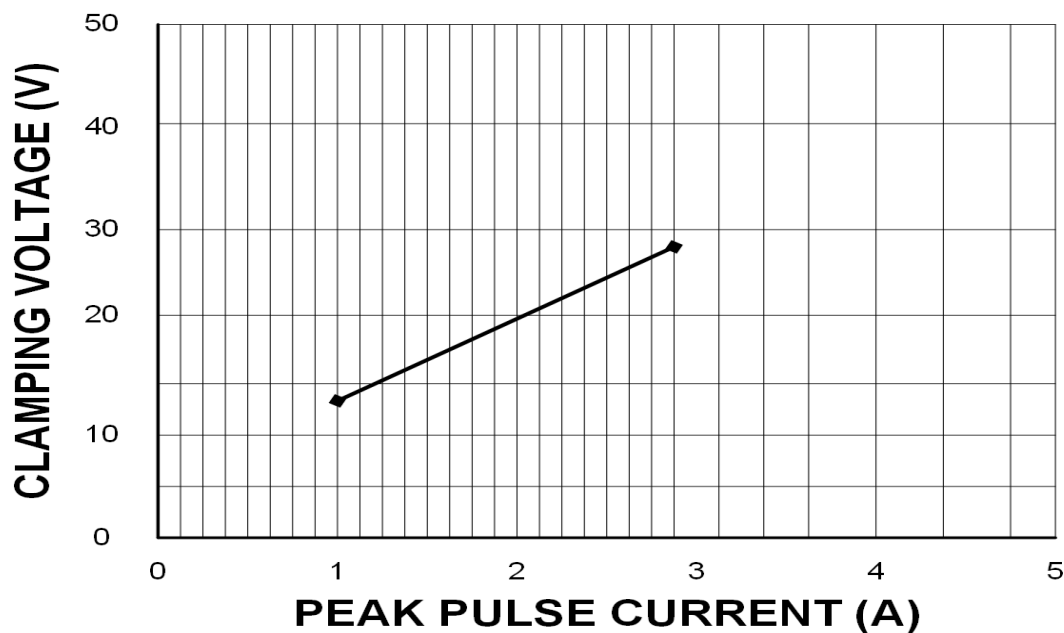
8 x 20 μs Waveform



Power Derating Curve

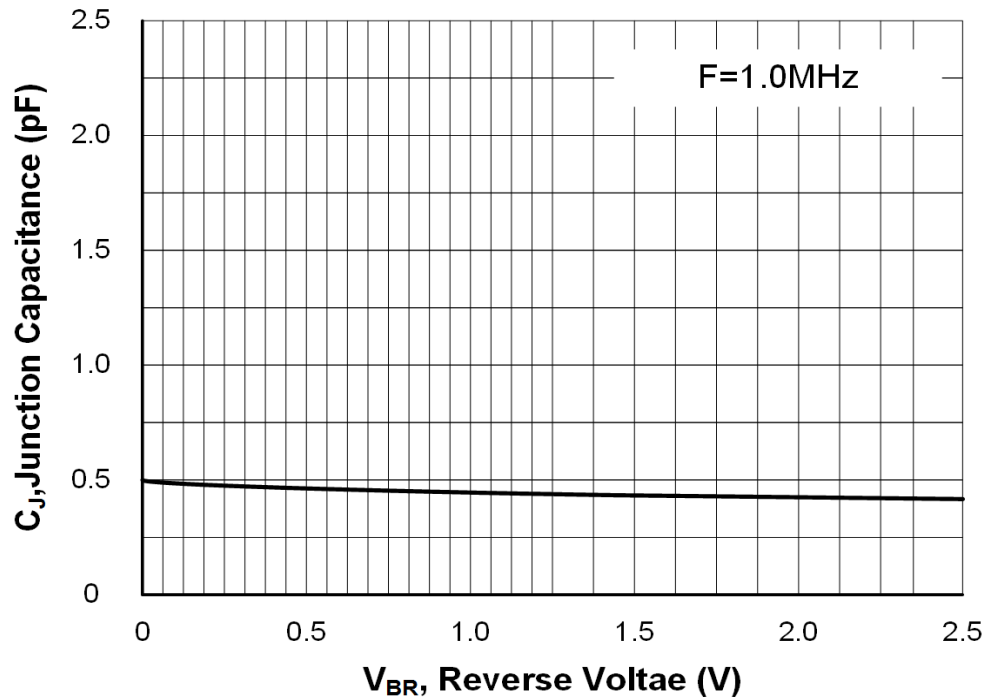


Clamping Voltage vs. Peak Pulse Current ($t_p=8/20\mu\text{s}$)

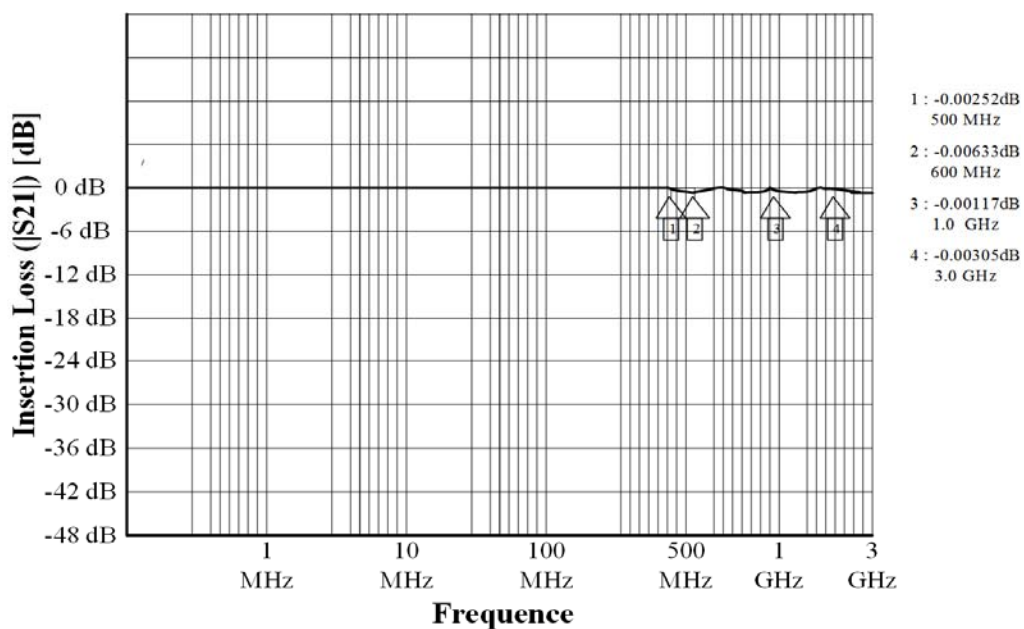


TYPIC CHARACTERISTICS

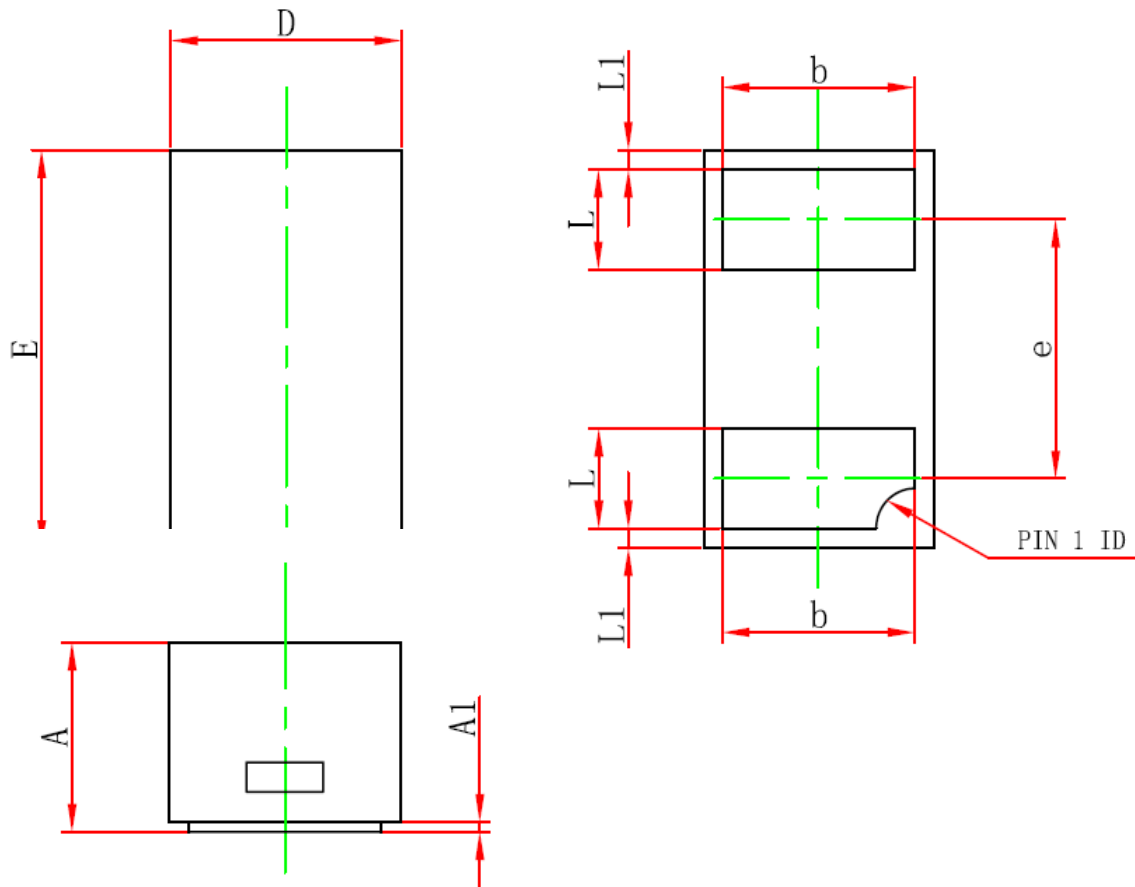
Typic Capacitance vs. Reverse Voltage



Insection Loss (S21)



DFN1006DN PACKAGE OUTLINE & DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.400	0.500	0.016	0.020
A1	0.000	0.050	0.000	0.002
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
b	0.400	0.600	0.016	0.024
e	0.650TYP.		0.026TYP.	
L	0.150	0.350	0.006	0.014
L1	0.050REF.		0.002REF.	