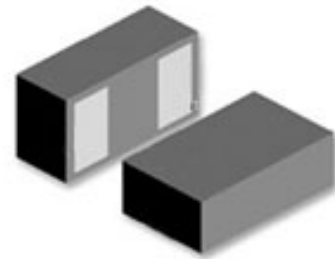


## Features

- Protects one I/O or Power Line
- Low Clamping Voltage
- Working Voltage: 7V
- Low Leakage Current
- Response Time is Typically < 1 ns
- IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 13A (8/20µs)



DFN1006



Schematic Diagram

## Applications

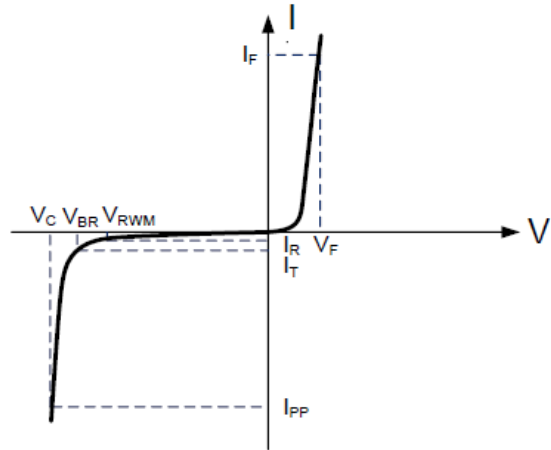
- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 Player

## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( t <sub>p</sub> = 8/20 µS)	P <sub>PP</sub>	220	W
Junction Temperature	T <sub>J</sub>	-55 to +125	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	

**Electrical Parameter (T=25°C)**

Parameter	Symbol
Clamping Voltage @ $I_{PP}$	$V_C$
Peak Pulse Current	$I_{PP}$
Breakdown Voltage @ $I_T$	$V_{BR}$
Test Current	$I_T$
Reverse Leakage Current @ $V_{RWM}$	$I_R$
Reverse Standoff Voltage	$V_{RWM}$

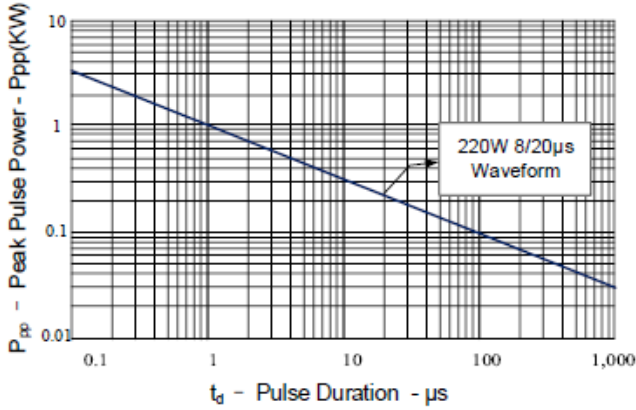


**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise specified.)

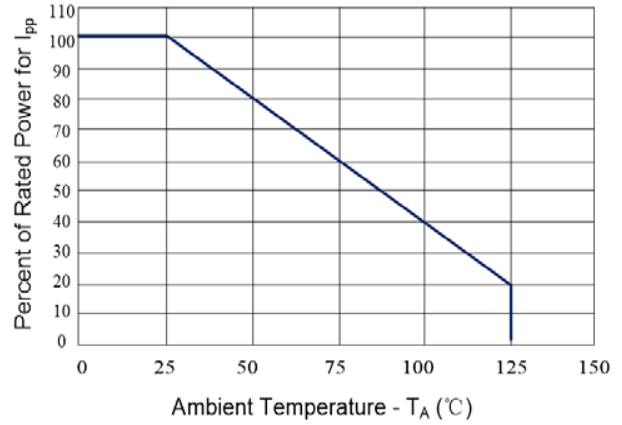
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ.	Max	
Reverse Stand-Off Voltage	$V_{RWM}$		-	-	7.0	V
Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	7.8	-	-	V
Reverse Leakage Current	$I_R$	$V_{RWM}=7\text{V}$	-	-	0.5	$\mu\text{A}$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu\text{s}$	-	-	13	A
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	-	-	9.5	V
Clamping Voltage	$V_C$	$I_{PP}=13\text{A}, t_p=8/20\mu\text{s}$	-	15	17	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$	-	63	70	pF

**Typical Characteristic Curves**

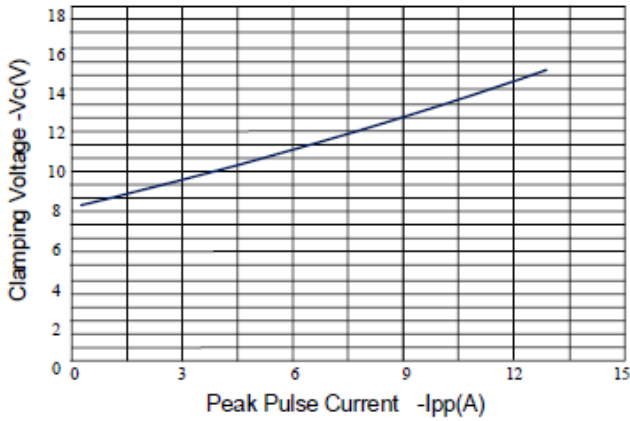
**Figure 1: Peak Pulse Power Vs Pulse Time**



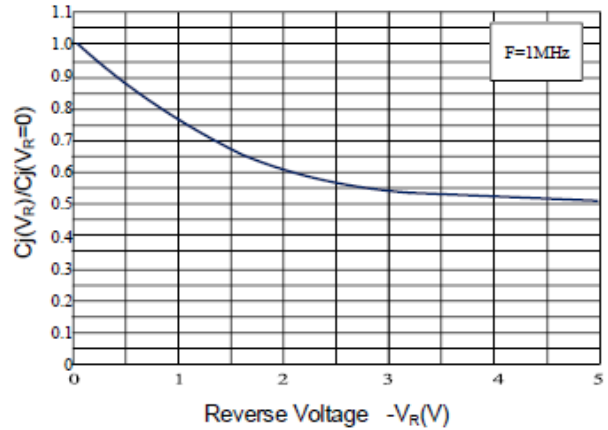
**Figure 2: Power Derating Curve**



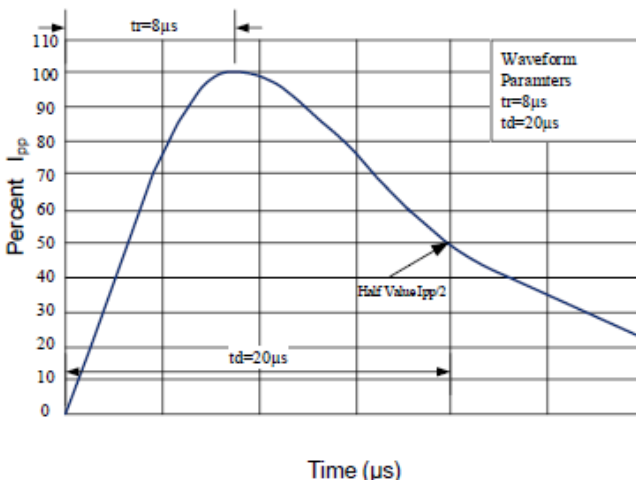
**Figure 3: Clamping Voltage vs. Peak Pulse Current**



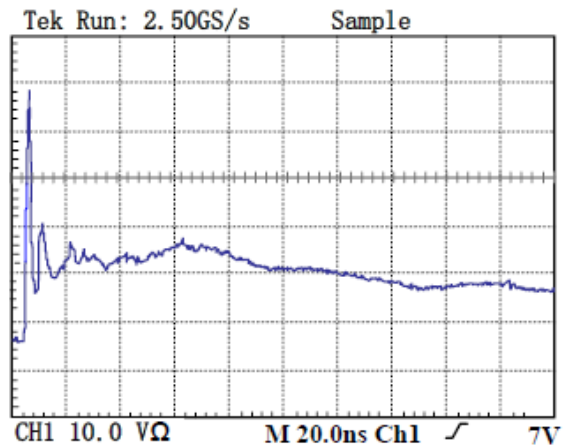
**Figure 4: Normalized Junction Capacitance vs. Reverse Voltage**



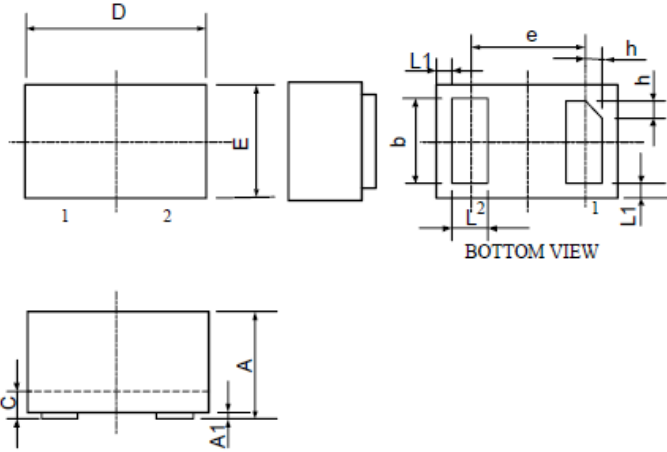
**Figure 5: Pulse Waveform**



**Figure 6: ESD Clamping( 8kV Contact per IEC 61000-4-2)**



**Package Outline Dimensions (DFN1006)**



SYMB	MILIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17

**Recommended Pad Layout**

