

**Description**

The is designed to protect voltage sensitive components form damage or latch-up due to ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD for board level. Because of its small size and bi-directional design, it is ideal for use in cellular phones, MP3 players, and portable applications that require audio line protection.

**Feature**

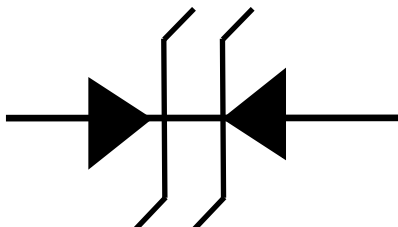
- 60W peak pulse power (tp=8/20μs)
- Low leakage Current and Low Clamping Voltage
- Working voltage: 5V
- RoHS compliant
- Transient protection for high speed data Lines to IEC61000-4-2(ESD)±25KV(air),±25KV (Contact)

**Ordering Information**

- Package : DFN1006
- Material : Halogen free
- Packing : Tape & Reel
- Quantity per reel : 10,000 PCS
- Flammability Rating : UL 94V-0
- Reel size : 7 inch

**Applications**

- Cellular handsets and accessories
- Portable Digital Assistants
- Notebooks & Handhelds
- Digital Cameras
- MP3 Players
- Peripherals

**Circuit Diagram**

**Schematic & Pin Configuration**


**Ordering Information per line@25°C ( unless otherwise specified)**

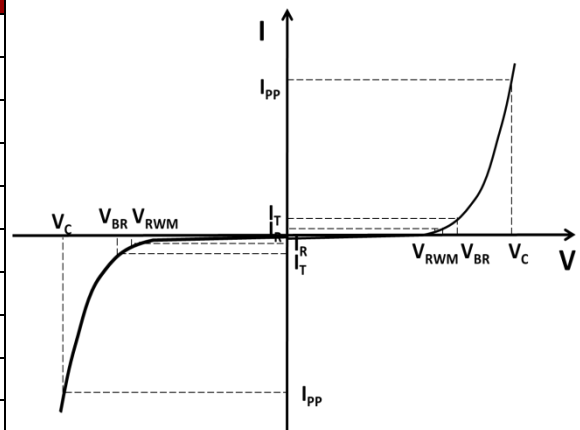
Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	P <sub>pk</sub>	60	W
Peak pulse current (tp = 8/20μs)	I <sub>PP</sub>	6	A
ESD according to IEC61000-4-2 air discharge	V <sub>ESD</sub>	±25	kV
ESD according to IEC61000-4-2 contact discharge		±25	
Junction temperature	T <sub>J</sub>	125	°C
Operating temperature	T <sub>OP</sub>	-40~85	°C
Lead temperature	T <sub>L</sub>	260	°C
Storage temperature	T <sub>STG</sub>	-55~150	°C

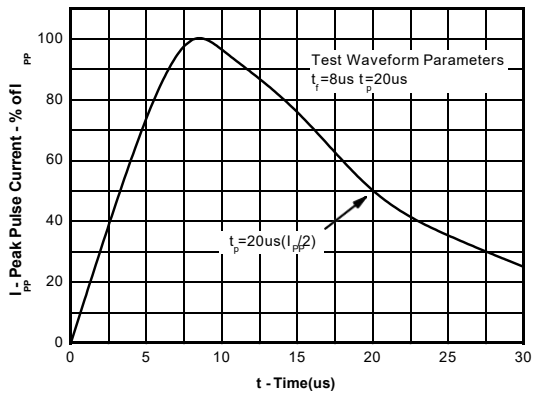
**Electrical Characteristics per line@25°C ( unless otherwise specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V <sub>RWM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6		8.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V			1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A tp=8/20us Any I/O pin to Ground			8.0	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =6A tp=8/20us Any I/O pin to Ground			10	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f = 1MHz Any I/O pin to Ground		12		pF

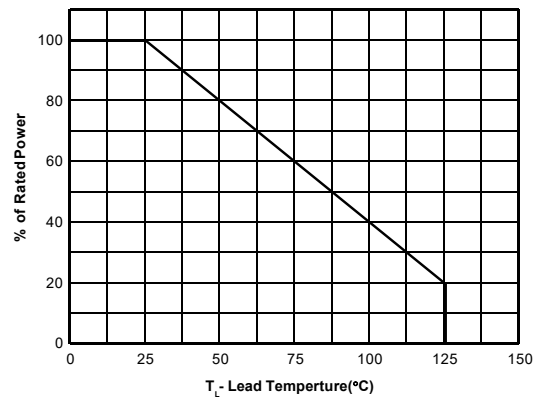
**Electronics Parameter**

Symbol	Parameter
V <sub>RWM</sub>	Peak Reverse Working Voltage
I <sub>R</sub>	Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
P <sub>PP</sub>	Peak Pulse Power
C <sub>J</sub>	Junction Capacitance
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>

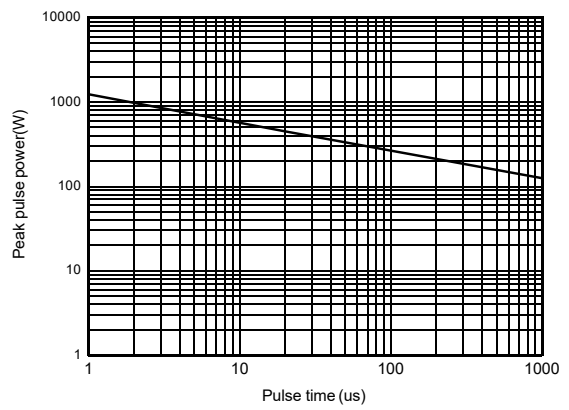


**Typical Characteristics**


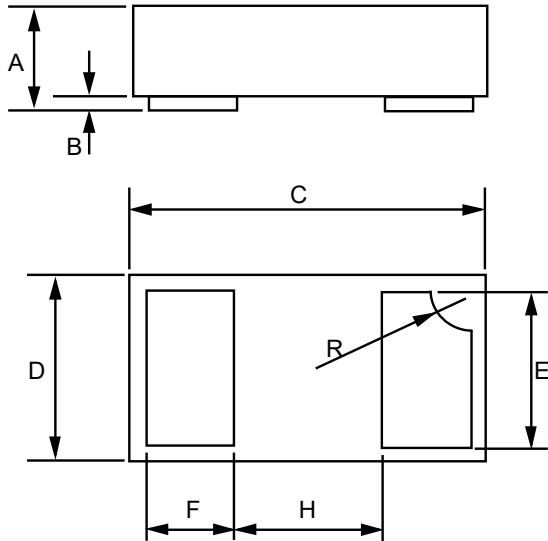
Pulse Waveform



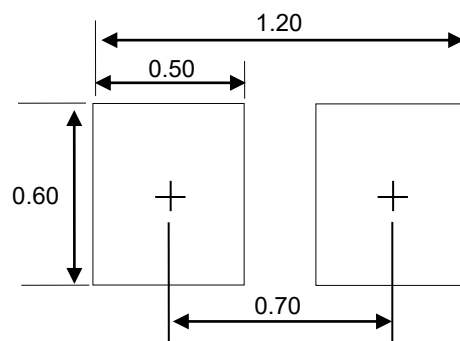
Power Derating Curve



Non repetitive peak pulse power vs. Pulse time

**Product dimension(DFN1006-2L)**


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.50
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15



Unit:mm

**Suggested PCB Layout**