Features

- 70 Watts Peak Pulse Power per Line (tp = 8/20μs)
- Bidirectional Configuration
- Protects One Power or I/O Port
- ESD Protection > 40 kilovolts
- Low Clamping Voltages

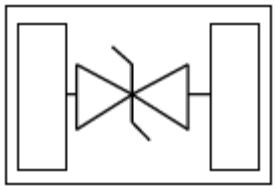
DFN1006

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) :±20kV (air), ±15kV (contact)
- IEC 61000-4-4 (EFT) :40A (5/50ns)
- IEC 61000-4-5(Surge): 4A, 8/20μs

Applications

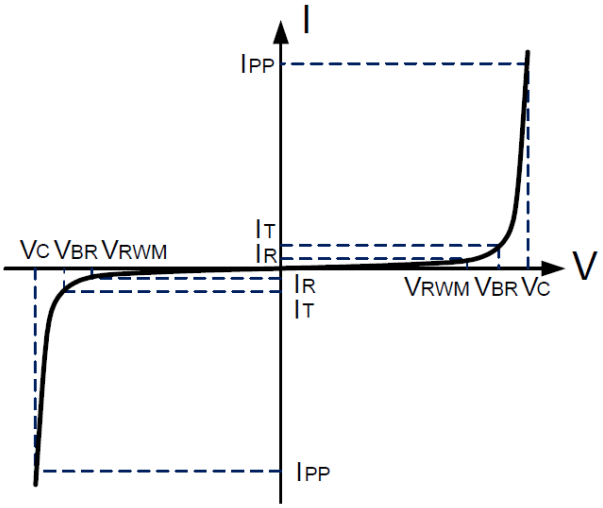
- Ethernet - 10/100/1000 Base T
- Cellular Phones
- Handheld - Wireless Systems
- Personal Digital Assistant (PDA)
- USB Interface



Electrical Parameters

Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	P_{PP}	70	Watts
Operating Temperature	T_J	-55℃~125℃	℃
Storage Temperature	T_{STG}	-55℃~150℃	℃

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum 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

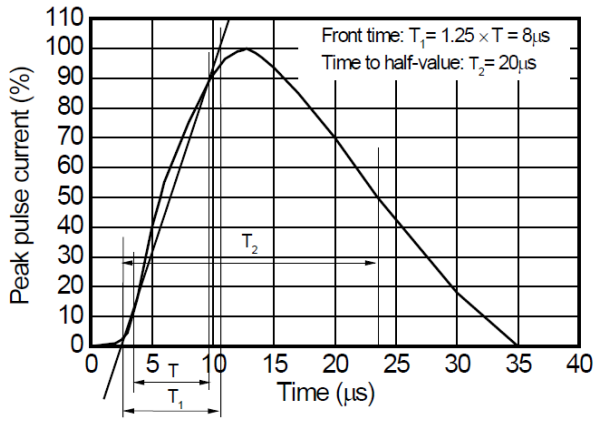


Ratings and characteristic curves (T_A=25°C unless otherwise noted)

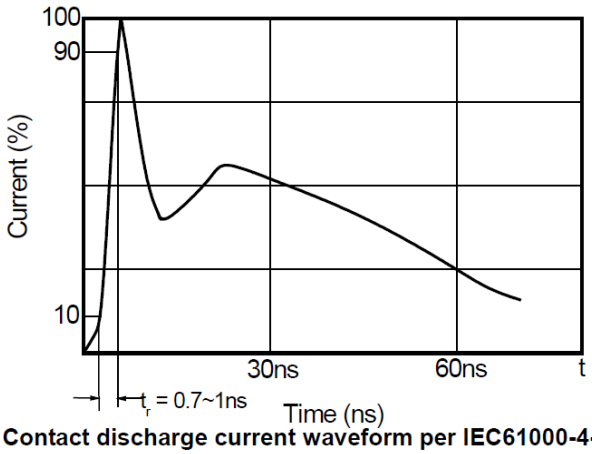
Parameter	Symbol	Condition	Min	Max	Units
Reverse Stand-off Voltage	V_{RWM}	Pin2 to 1/Pin1 to 2		5.0	V
Reverse Breakdown Voltage	V_{BR}(min)	I_Z=1mA	6.4	9.0	V
Reverse Leakage Current	I_R(max)	@V_{RWM}		0.5	μA
Clamping Voltage	V_C	I_{PP}=4A tp=8/20us		18	V
Peak Pulse Current	I_{PP}	tp=8/20us	4		A
Junction Capacitance	$C_{I/O}$	Pin capacitance to GND.Vdc=0V,f=1MHZ	0.3	0.45	pf

Typical Characteristics

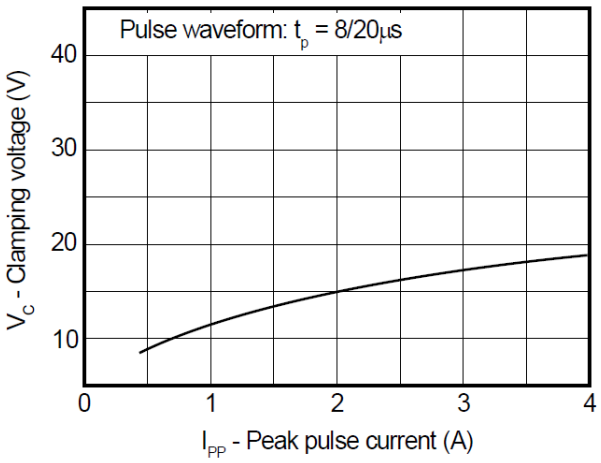
Typical characteristics (T_A=25°C, unless otherwise noted)



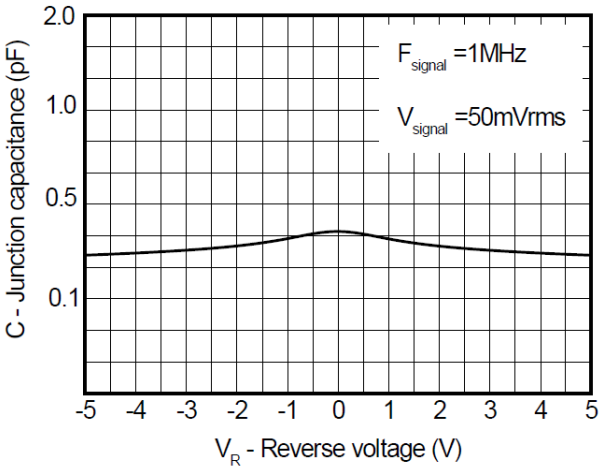
8/20μs waveform per IEC61000-4-5



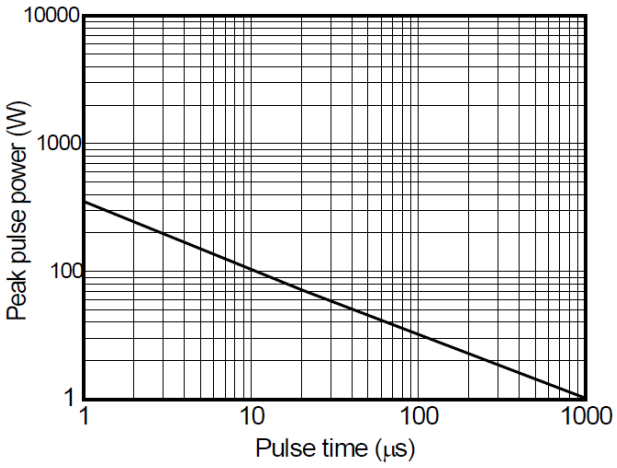
Contact discharge current waveform per IEC61000-4-2



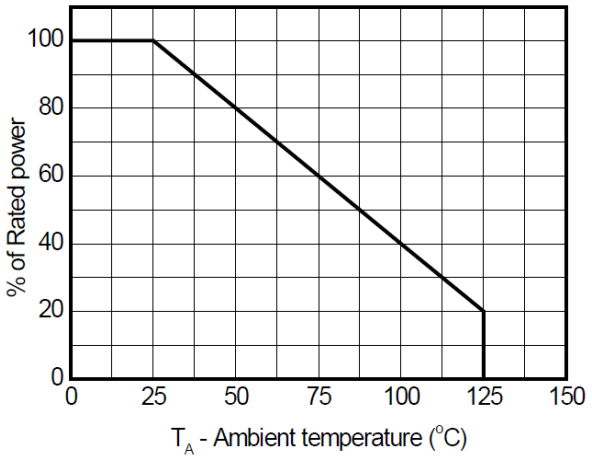
Clamping voltage vs. Peak pulse current



Capacitance vs. Reveres voltage



Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature

Dimensions

DFN1006