Features

- 200 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

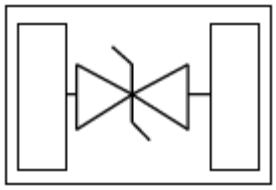
DFN1006

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) :±30kV (air), ±30kV (contact)
- IEC 61000-4-4 (EFT) :40A (5/50ns)
- IEC 61000-4-5(Surge): 18A, 8/20μs

Applications

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



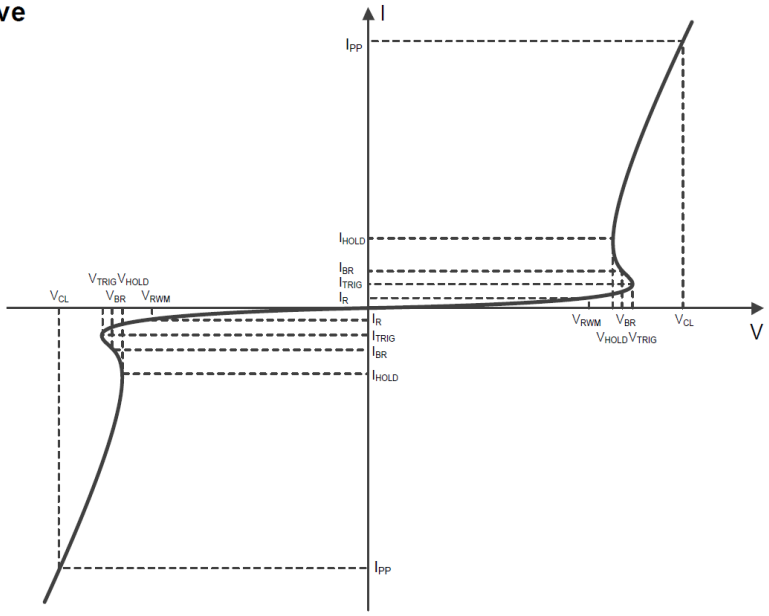
Electrical Parameters

Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	P_{PP}	200	Watts
Operating Temperature	T_J	-55℃~125℃	℃
Storage Temperature	T_{STG}	-55℃~150℃	℃

Electrical performance curve

V_{RWM} Reverse stand-off voltage
I_R Reverse leakage current
V_{CL} Clamping voltage
I_{PP} Peak pulse current

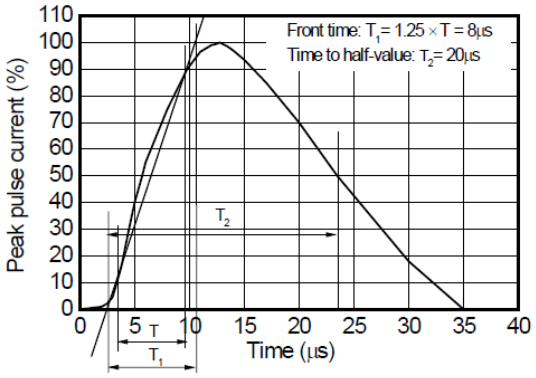
V_{TRIG} Reverse trigger voltage
I_{TRIG} Reverse trigger current
V_{BR} Reverse breakdown voltage
I_{BR} Reverse breakdown current
V_{HOLD} Reverse holding voltage
I_{HOLD} Reverse holding current



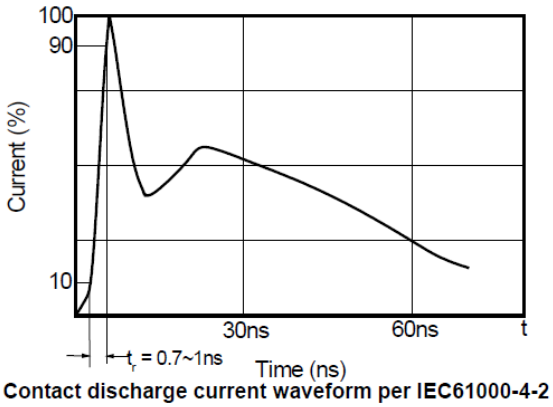
Ratings and characteristic curves (T_A=25°C unless otherwise noted)

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	5.5	8.0	V
Reverse Leakage Current	I_R(max)	@V_{RWM}		0.2	μA
Clamping Voltage	V_C	I_{PP}=18A tp=8/20us		12	V
Peak Pulse Current	I_{PP}	tp=8/20us	18		A
Junction Capacitance	$C_{I/O}$	Pin capacitance to GND.Vdc=0V,f=1MHZ		40	pf

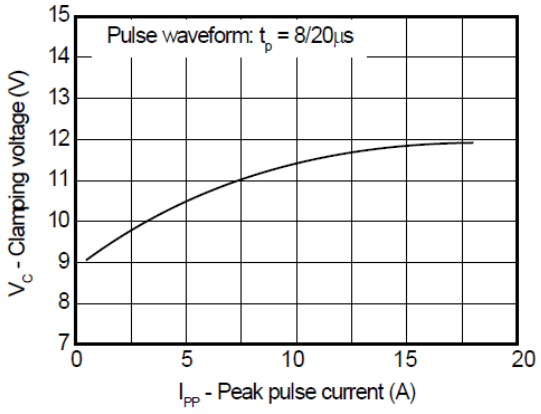
Typical Characteristics



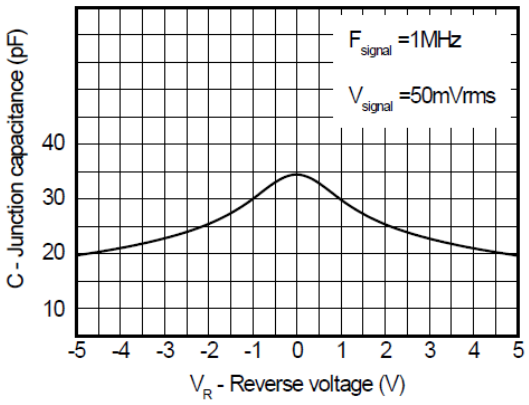
8/20μs waveform per IEC61000-4-5



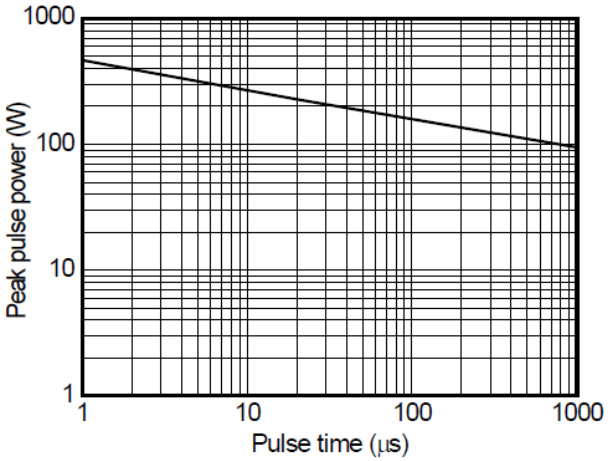
Contact discharge current waveform per IEC61000-4-2



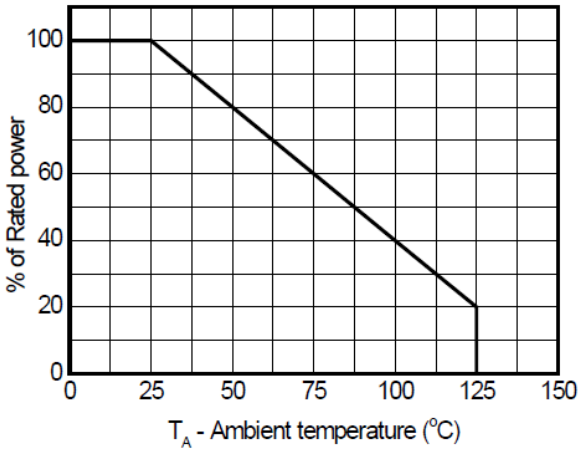
Clamping voltage vs. Peak pulse current



Capacitance vs. Reveres voltage



Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature

Dimensions

DFN1006

DIMENSION OUTLINE: Unit:mm