

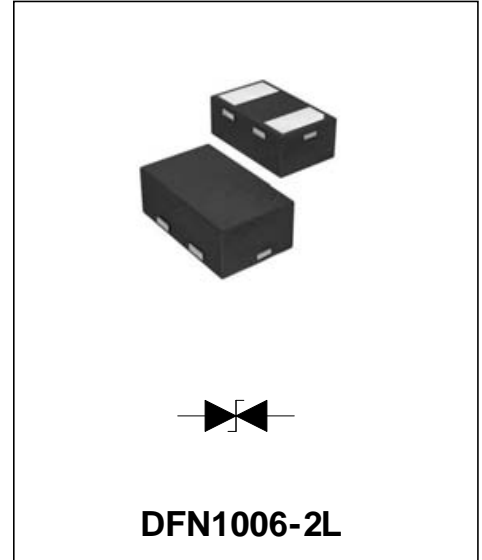
Transient Voltage Suppressor

Features

- ◆Protects one I/O or Power Line
- ◆Low Clamping Voltage
- ◆Working Voltage: 5V
- ◆Low Leakage Current

Application

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



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 (Lightning) 25A (8/20μs)

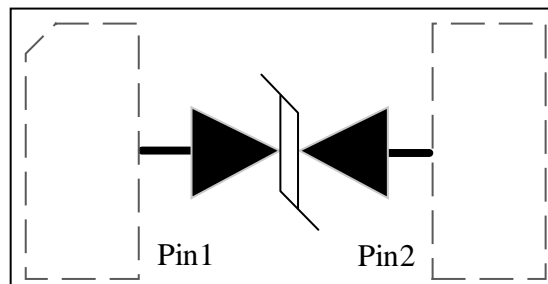
Mechanical Characteristics

- ◆DFN-2L package
- ◆Molding compound flammability rating:
UL 94V-0
- ◆RoHS Compliant

Order Information

Part Number	Package	Marking	Size (mm)	Delivery Form	Delivery Quantity
ESD1006B5V0F	DFN1006-2L	M *	1.00x0.60x0.40	7" T&R	10000PCS/Tape

Schematic & PIN Configuration

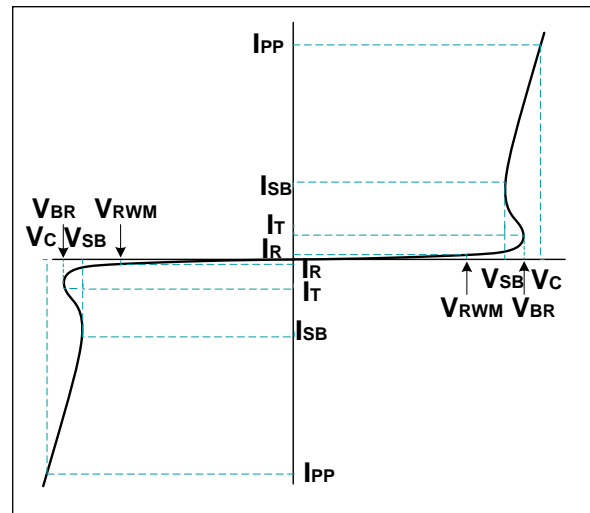


Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	250	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)(note1)	I_{PP}	25	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

Electrical Parameters (TA = 25 $^{\circ}C$ unless otherwise noted)

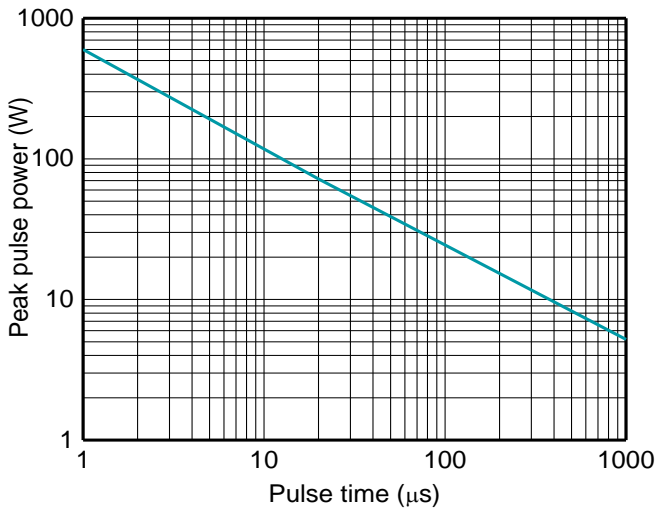
Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
V_{SB}	Snap-Back Voltage @ I_{SB}
I_{SB}	Snap-Back Current



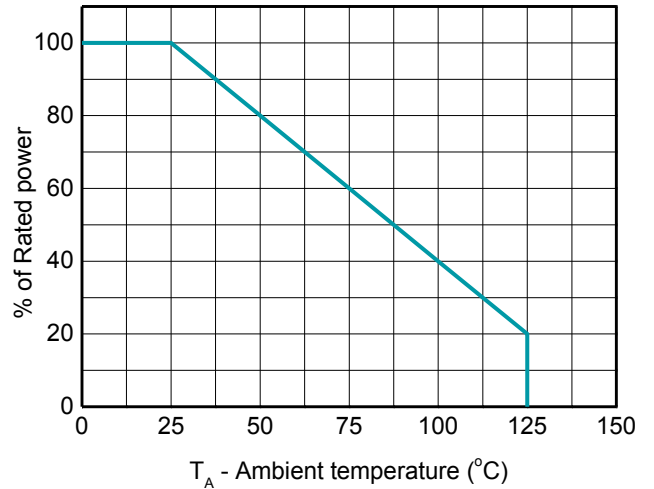
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6		8	V
Reverse Leakage Current	I_R	$V_{RWM} = 5V, T = 25^{\circ}C$			0.1	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$		25		A
Clamping Voltage	V_C	$I_{PP} = 25A, t_p = 8/20\mu s$		11		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		90		pF

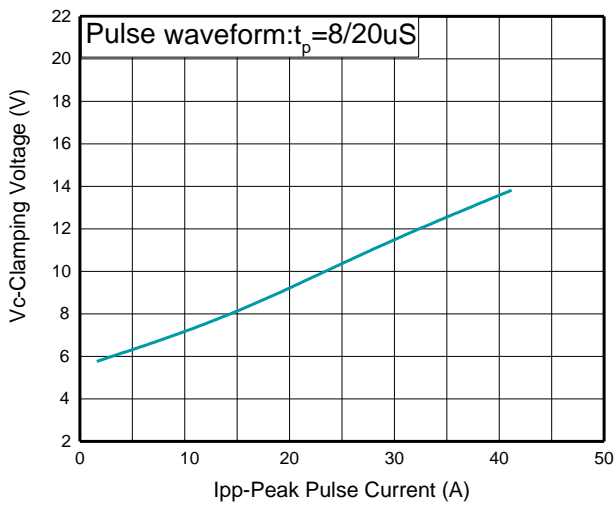
Typical Characteristics



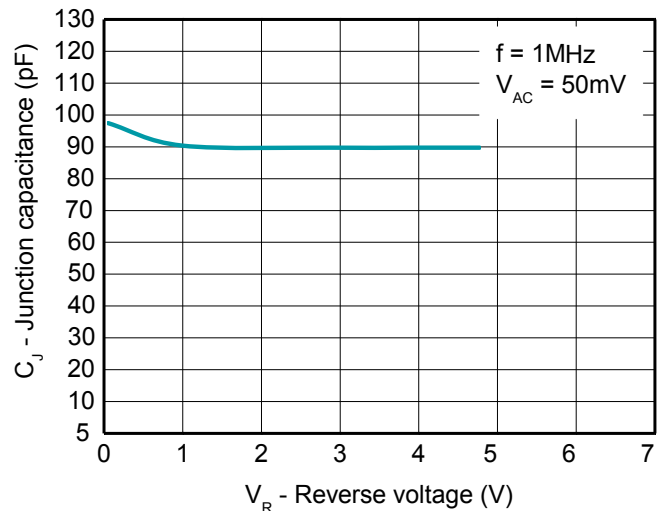
Non-repetitive peak pulse power vs. Pulse time



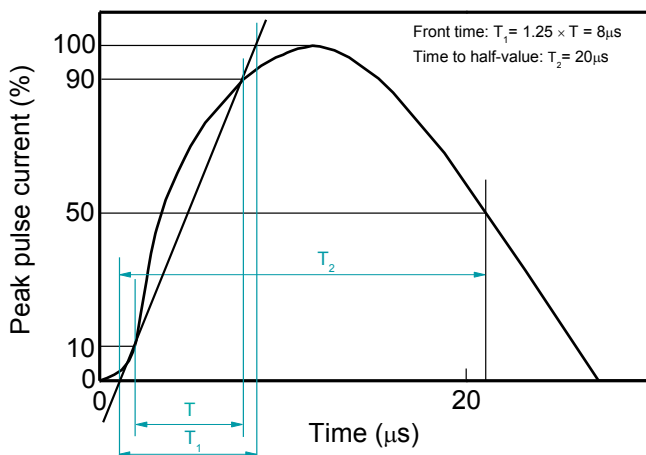
Power derating vs. Ambient temperature



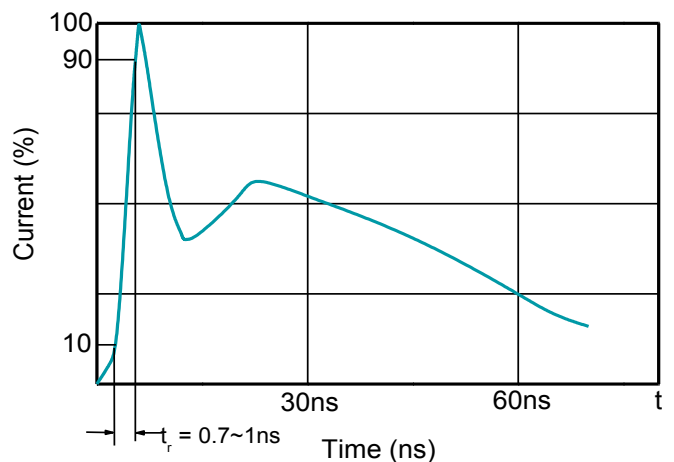
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage



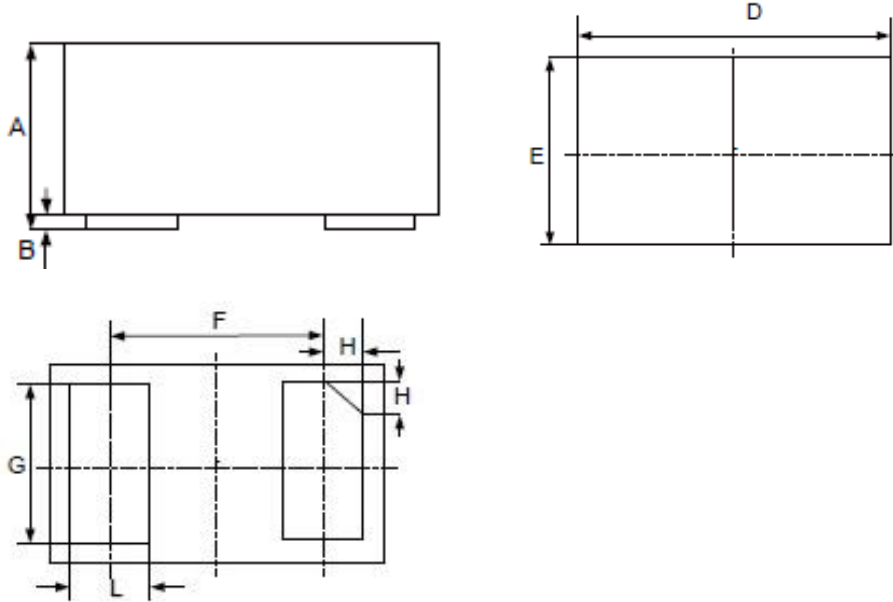
8/20μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

Package Outline

DFN1006-2L



DIM	MILIMETER	
	MIN (mm)	MAX (mm)
A	0.34	0.55
B	0	0.05
D	0.95	1.08
E	0.55	0.68
F	0.65(Typ)	
G	0.40	0.60
H	0.07	0.17
L	0.20	0.30