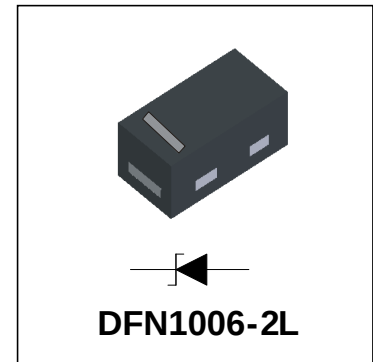


Features

- 525Watts peak pulse power ($t_p = 8/20\mu s$)
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Protection one power line
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 35A (8/20 μs)



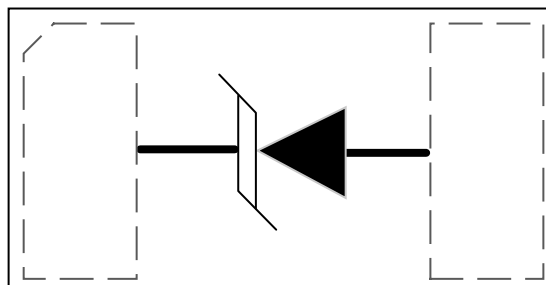
Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistants (PDAs)

Mechanical Data

- DFN1006 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration

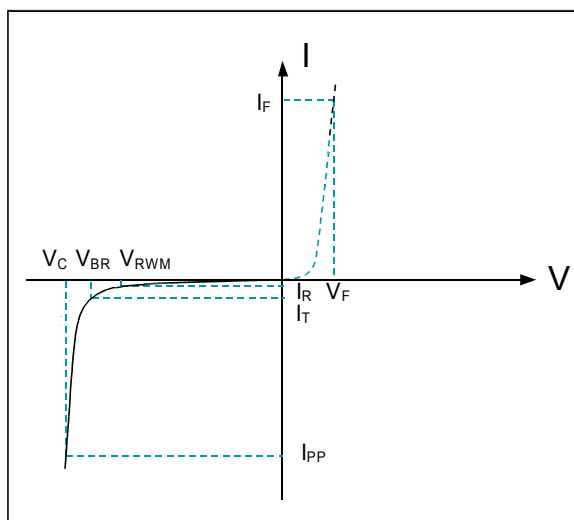


Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	525	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	35	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 + 150	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 150	$^{\circ}C$

Electrical Parameters (TA = 25°C unless otherwise noted)

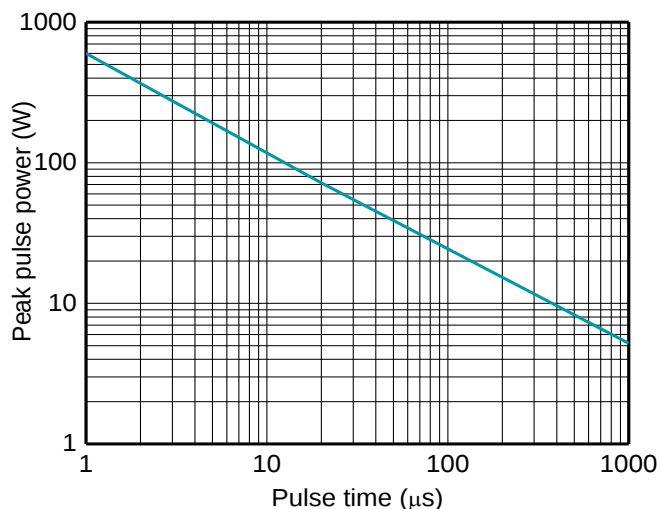
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



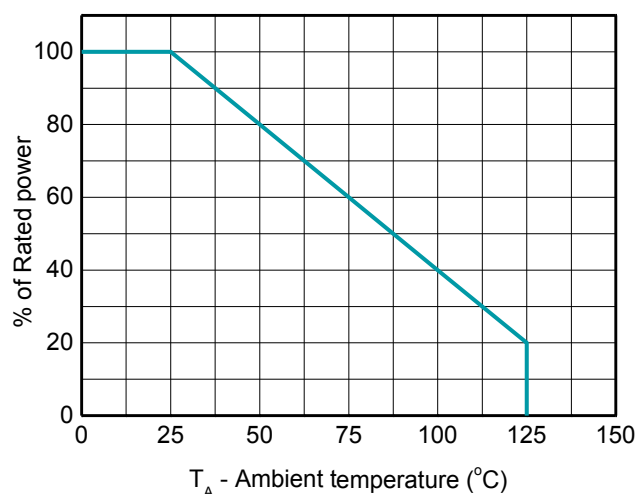
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				7.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	7.3		9.0	V
Reverse Leakage Current	I_R	$V_{RWM} = 7.0V, T = 25^{\circ}C$			0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$		35		A
Clamping Voltage	V_C	$I_{PP} = 35A, t_p = 8/20\mu s$			15	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		200		pF

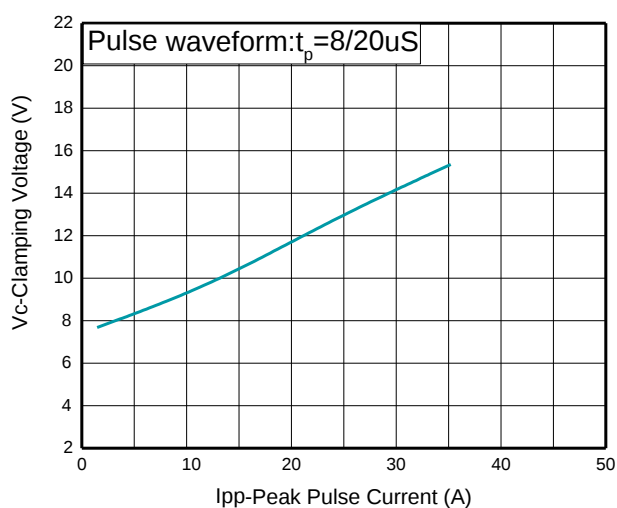
Typical Characteristics



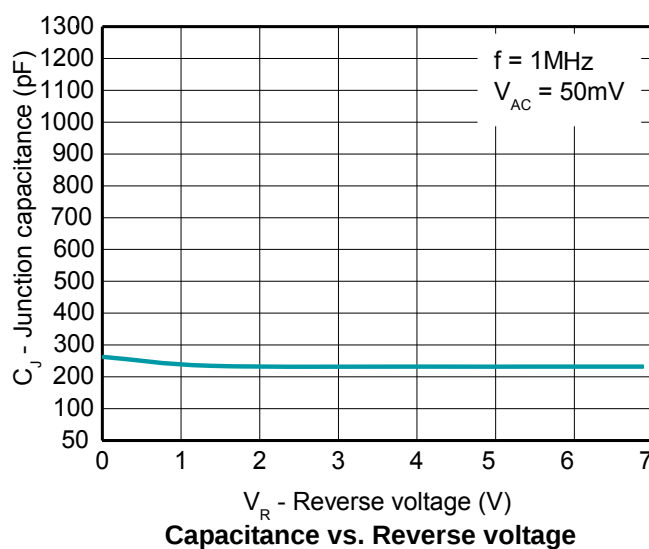
Non-repetitive peak pulse power vs. Pulse time



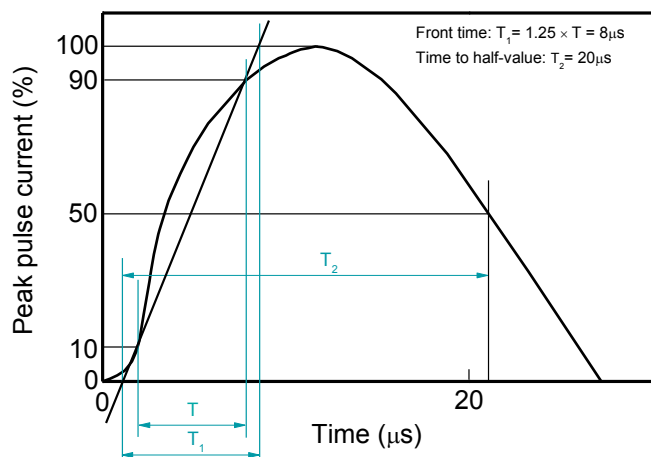
Power derating vs. Ambient temperature



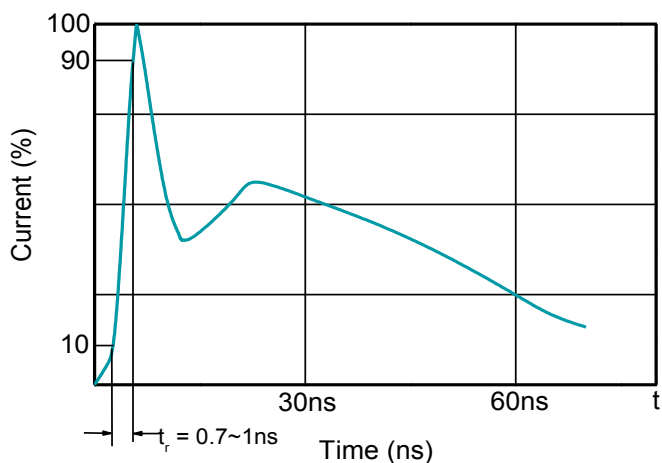
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage

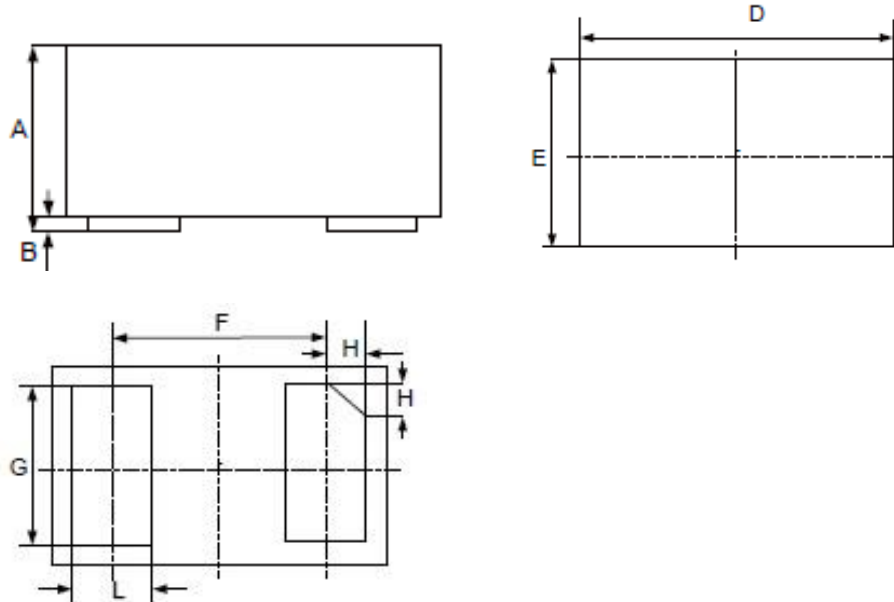


8/20μs waveform per IEC61000-4-5



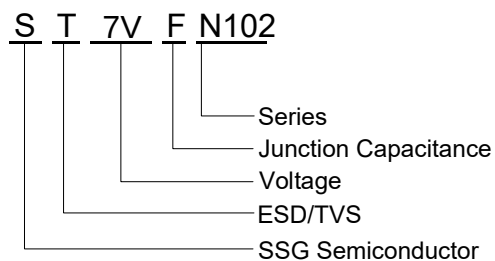
Contact discharge current waveform per IEC61000-4-2

Outline Drawing – DFN1006



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

Part Numbering System



Device	Package	Shipping	MarKing	Parameter
ST7VFN102	DFN1006-2L	10000/Tape&Reel	K *	K = Product Code * = Device Code