

Transient Voltage Suppressor

FEATURES

- ◆400Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆Unidirectional configurations
- ◆Solid-state silicon-avalanchet echnology
- ◆Low clamping voltage
- ◆Low leakage current

IEC COMPATIBILITY (EN61000-4)

- ◆IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- ◆IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆IEC 61000-4-5 (Lightning) 10A (8/20 μs)

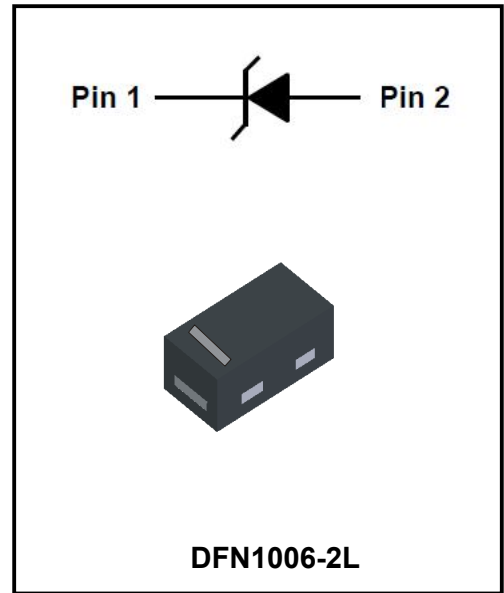
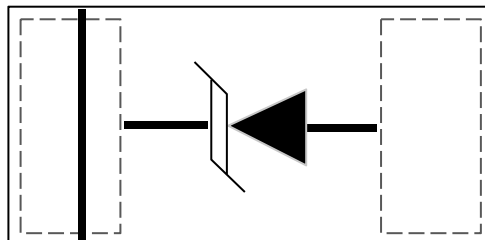
MECHANICAL CHARACTERISTICS

- ◆Case:DFN1006-2L
- ◆Molding compound flammability rating: UL 94V-0
- ◆Packaging : Tape and Reel per EIA 481
- ◆RoHS/WEEE Compliant

APPLICATIONS

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

Schematic & PIN Configuration



Marking Code

ESD1006D24

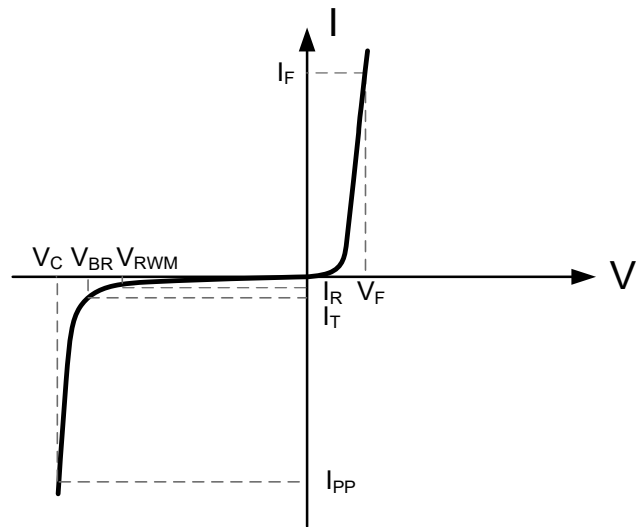
24*

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	400	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{pp}	10	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	
Operation junction temperature	T_J	125	$^{\circ}C$
Lead temperature	T_L	260	$^{\circ}C$
Storage temperature	T_{STG}	-55~150	$^{\circ}C$

Electrical Parameters (T=25°C)

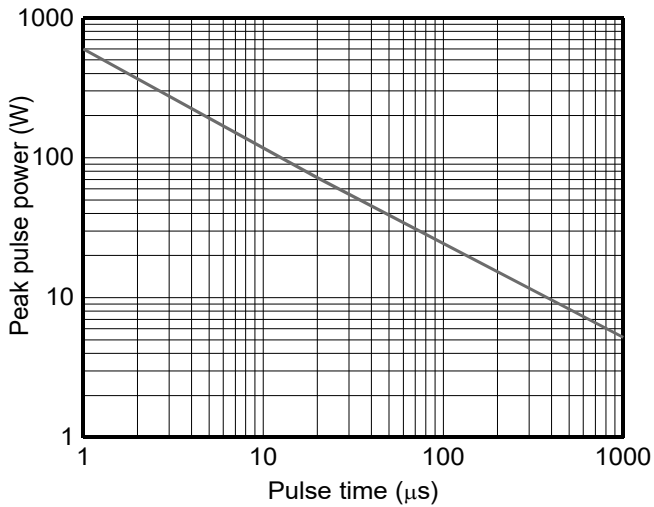
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I _{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V _{RWM}
V_{BR}	Breakdown Voltage @ I _T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I _F



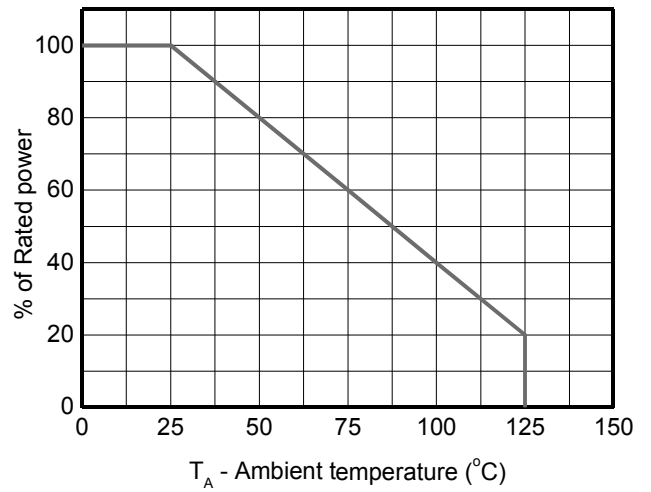
Electrical Characteristics

Parameter	Conditions	Symbols	Min	Typ	Max	Unit
Reverse Stand-Off Voltage		V_{RWM}			24	V
Reverse Breakdown Voltage	I _T =1mA	V_{BR}	26.5		30	V
Reverse Leakage Current	V _{RWM} =24V, T=25°C	I_R			0.1	μA
Peak Pulse Current	t _p =8/20μs	I_{PP}		10		A
Clamping Voltage	I _{PP} =10A, t _p =8/20μs	V_C		40		V
Junction Capacitance	V _R = 0V, f = 1MHz	C_J		30	60	pF

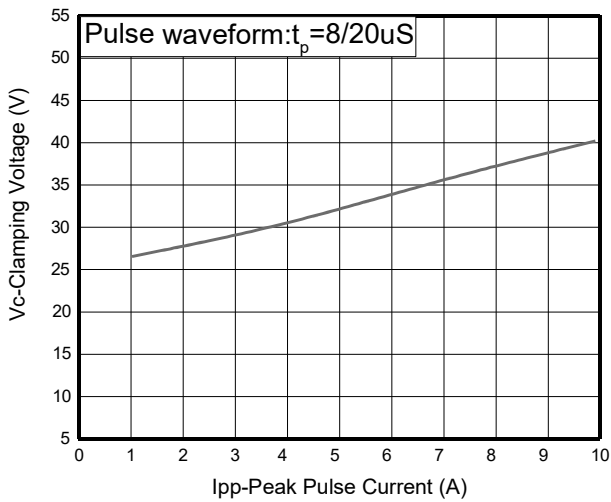
Typical Characteristics



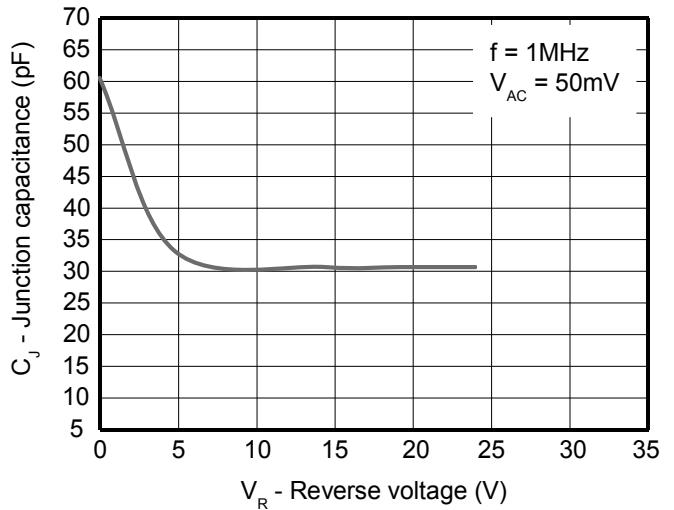
Non-repetitive peak pulse power vs. Pulse time



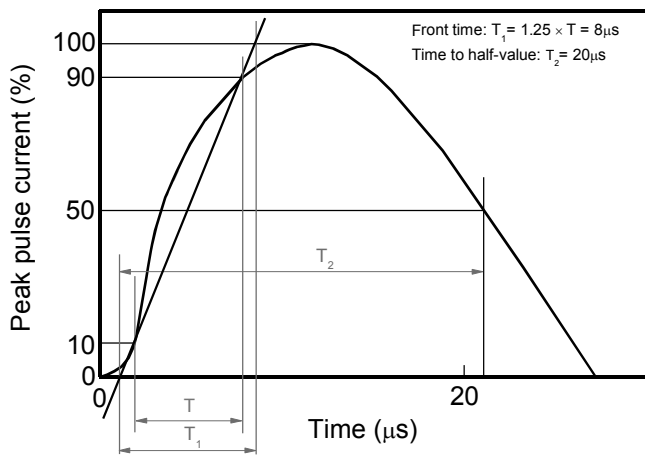
Power derating vs. Ambient temperature



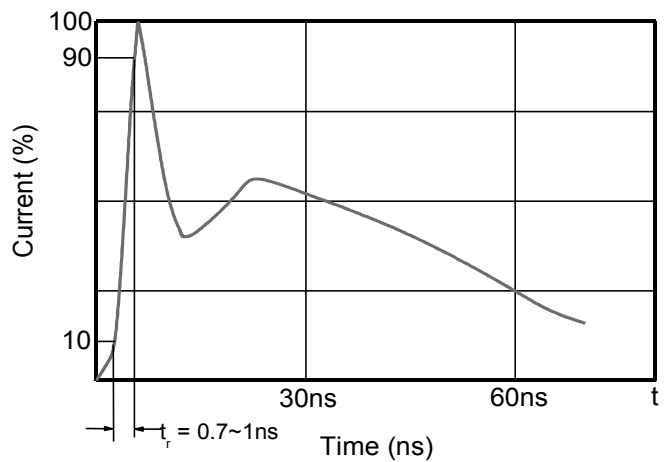
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage



8/20μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

Ordering information

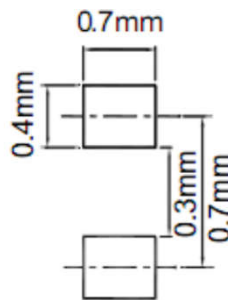
Package	Packing Description	Packing Quantity
DFN1006-2L	Tape/Reel,7"reel	10000PCS/Reel 400000PCS/Carton

Package Dimensions

DFN1006-2L

Dim.	Millimeter(mm)		Inches	
	Min.	Max.	Min.	Max.
A	0.350	0.450	0.014	0.018
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.420	0.520	0.017	0.020
E1	0.550	0.650	0.022	0.026
L	0.270	0.370	0.011	0.015
L1	-	0.100	-	0.004

The recommended mounting pad size



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