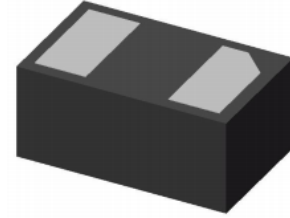


FEATURES:

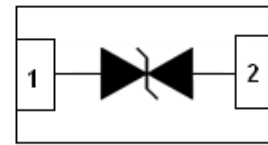
- ✧ Protects one bi-directional I/O line
- ✧ Low clamping voltage
- ✧ Low operating voltage: 12V
- ✧ ROHS compliant

MAIN APPLICATIONS

- ✧ Cell Phone Handsets and Accessories
- ✧ Personal Digital Assistants (PDA's)
- ✧ Notebooks, Desktops, and Servers
- ✧ Portable Instrumentation
- ✧ Pagers
- ✧ Microprocessor based equipment



DFN1006



PIN Configuration

PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ✧ IEC61000-4-5 (Lighting) 4.0A (8/20us)

MECHANICAL CHARACTERISTICS

- ✧ Package DFN1006
- ✧ Molding Compound Flammability Rating : UL 94V-O
- ✧ Quantity Per Reel : 10,000pcs
- ✧ Lead Finish : Lead Free
- ✧ Marking code: 12S

ABSOLUTE MAXIMUM RATINGS (T_A=25°C, RH=45%-75%, unless otherwise noted)

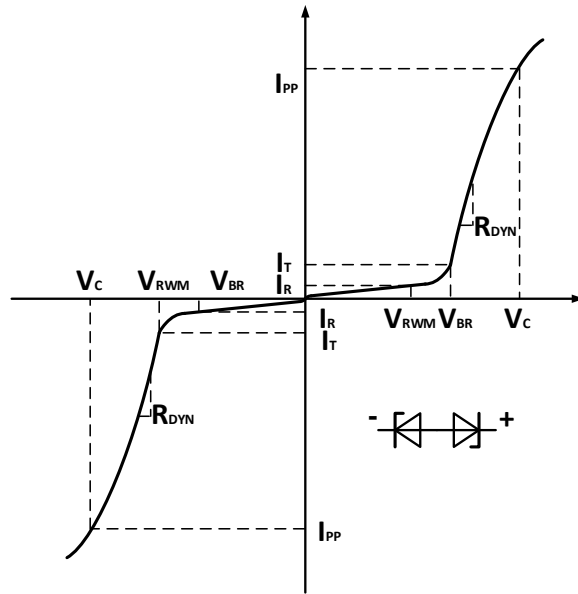
Parameter	Symbol	Value	Unit
Storage temperature range	T _{stg}	-55 to +150	°C
Operating junction temperature range	T _j	-55 to +125	°C
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Peak pulse power dissipation on 8/20 μs waveform	P _{PP}	120	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V _R				12	V
Reverse Breakdown Voltage	V _{BR}	I _T = 1mA	13.3			V
Reverse Leakage Current	I _R	V _R = 12V			1.0	μA
Peak Pulse Current	I _{pp}	t _p = 8/20μs			4.0	A
Clamping Voltage	V _C	I _{PP} = 1.0A, t _p = 8/20μs			20	V
		I _{PP} = 4.0A, t _p = 8/20μs			30	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz		8	15	pF

RATINGS AND V-I CHARACTERISTICS CURVES

Symbol	Parameter
V _{RWM}	Reverse Standoff Voltage
I _R	Max Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
V _C	Clamping Voltage @ I _{PP}
I _{PP}	Max Peak Pulse Current
R _{DYN}	Dynamic Resistance
C _J	Junction Capacitance
P _{PP}	Peak Pulse Power



RATINGS AND V-I CHARACTERISTICS CURVES ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

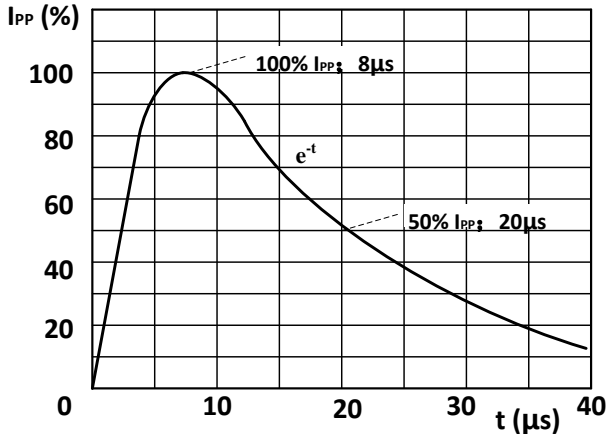


Fig. 1. 8/20 μs pulse waveform according to IEC 61000-4-5 and IEC 61643-321

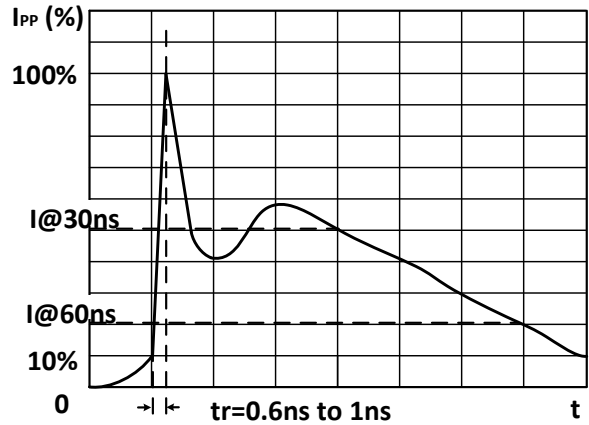


Fig. 2. ESD pulse waveform according to IEC 61000-4-2

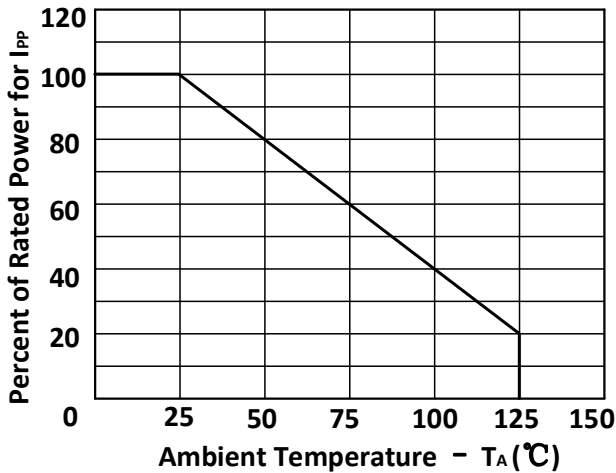


Fig. 3. Power Derating Curve

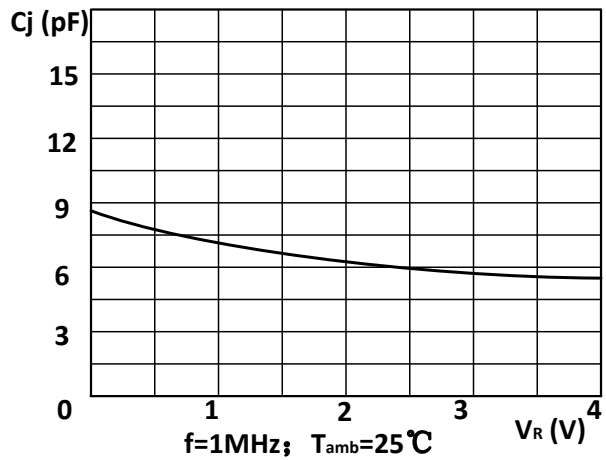
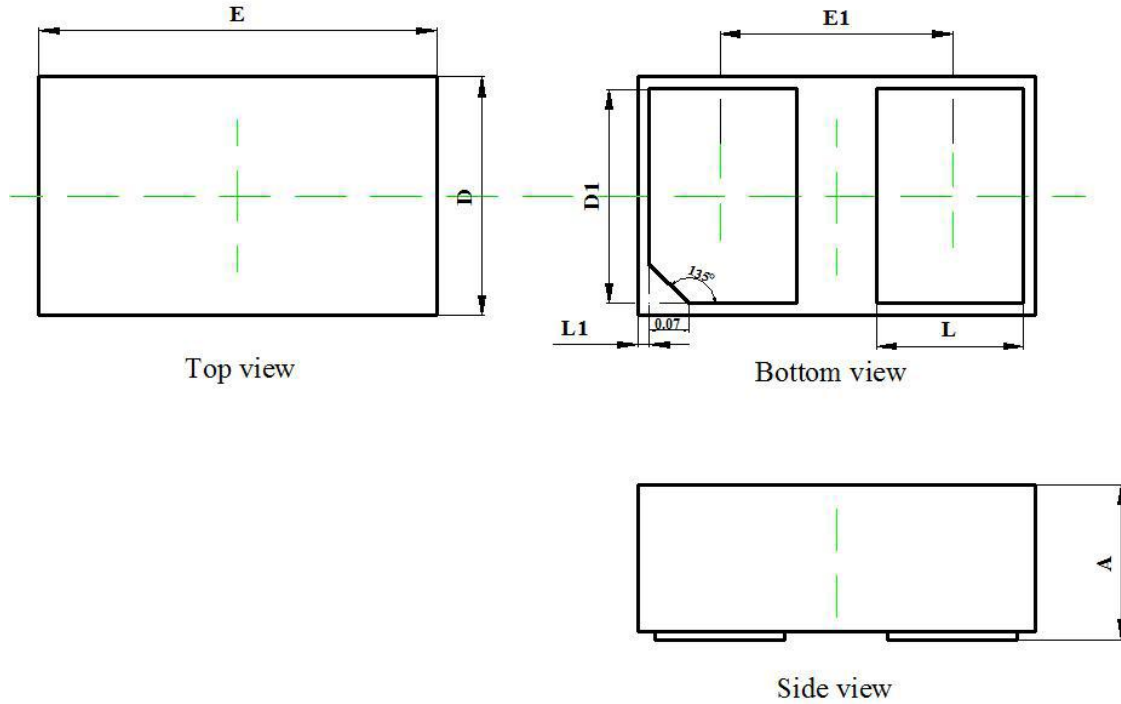


Fig. 4. Junction Capacitance vs V_R

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In 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	0.000	0.100	0.000	0.004