

**FEATURES**

- ✧ Protects one bi-directional I/O line
- ✧ Low clamping voltage
- ✧ Low operating voltage: 3.3V
- ✧ Low leakage current
- ✧ ROHS compliant

MAIN APPLICATIONS

- ✧ Cell phone handsets and accessories
- ✧ Personal digital assistants (PDA's)
- ✧ Notebooks, desktops, and servers
- ✧ Portable instrumentation
- ✧ Digital cameras

PROTECTION SOLUTION TO MEET

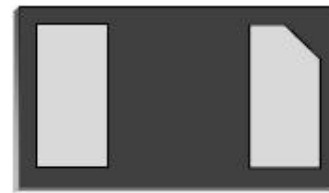
- ✧ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lightning) 7A (8/20 μs)

MECHANICAL CHARACTERISTICS

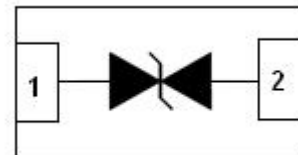
- ✧ DFN1006-2L package
- ✧ Molding compound flammability rating: UL 94V-0
- ✧ Quantity per reel: 10,000pcs
- ✧ Lead finish: lead free
- ✧ Marking code: 3B

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20 μs waveform	P_{PP}	100	W
ESD per IEC 61000-4-2 (Air)	V_{ESD}	+/- 15	kV
ESD per IEC 61000-4-2 (Contact)		+/- 8	
Lead soldering temperature	T_L	260 (10 sec.)	$^\circ\text{C}$
Operating junction temperature range	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$



DFN1006 - 2L



PIN Configuration

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V _{RWM}				3.3	V
Reverse breakdown voltage	V _{BR}	I _T = 1mA	3.7			V
Reverse leakage current	I _R	V _{RWM} = 5V			1.0	μA
Peak pulse current	I _{PP} ^①	t _P =8/20μs			7	A
Clamping voltage	V _C	I _{PP} = 7A, t _P =8/20μs		9	11	V
Junction capacitance	C _J	V _{RWM} = 0V, f = 1MHz		10		pF

① Surge waveform: 8/20μs

RATINGS AND V - I CHARACTERISTICS CURVES (T_A=25°C, unless otherwise noted)

FIG.1:V- I curve characteristics (Bi-directional)

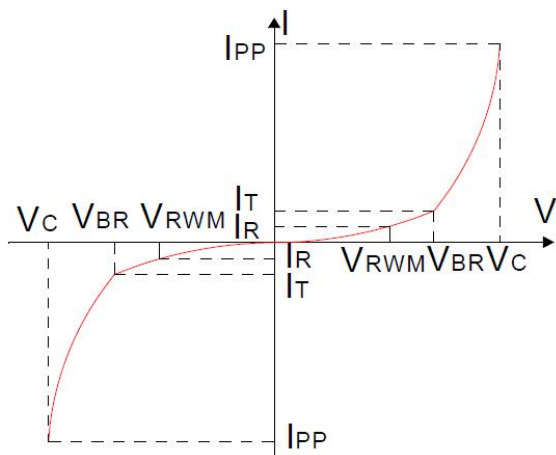


FIG.2: Pulse waveform (8/20μs)

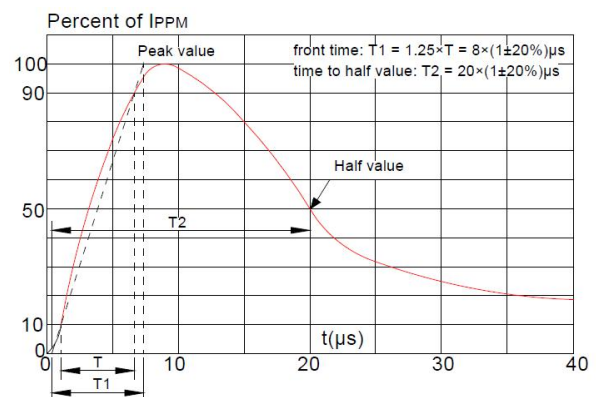


FIG.3: Pulse derating curve

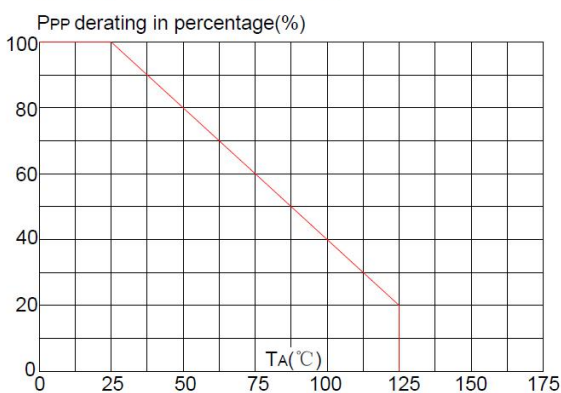
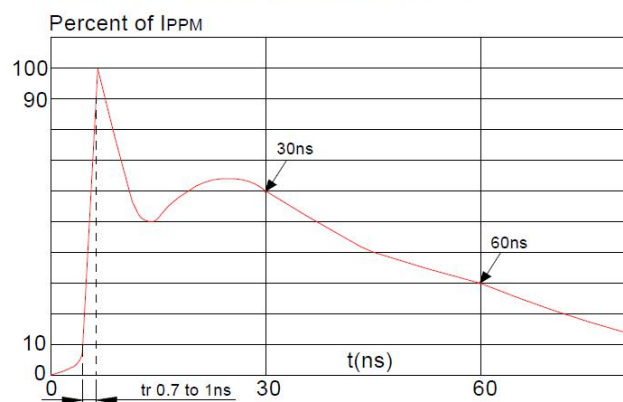
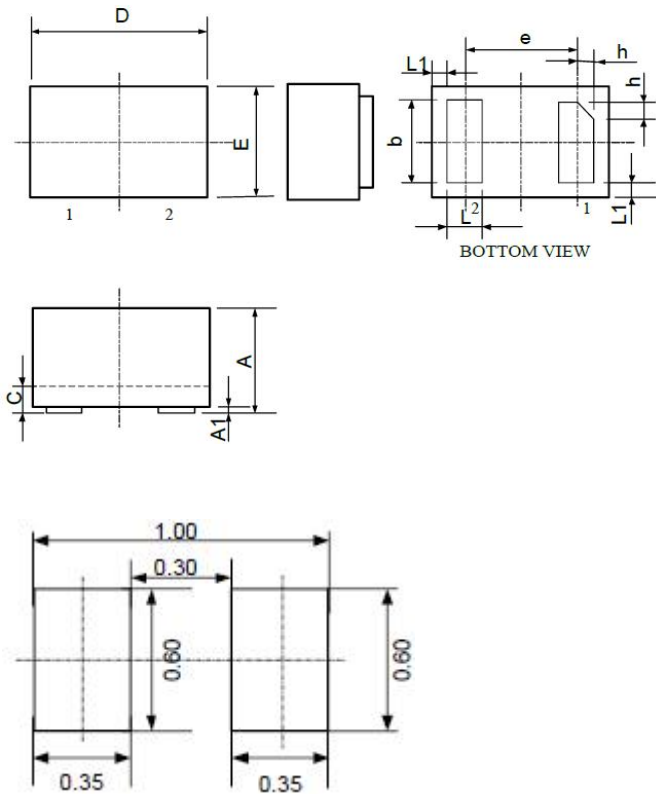


FIG.4: ESD clamping (8KV contact)



PACKAGE MECHANICAL DATA



Symbol	Milimeter		
	Min.	Nom.	Max.
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
H	0.07	0.12	0.17

Land Pattern