



### FEATURES

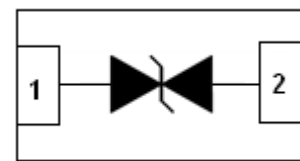
- ✧ Protects one bi-directional I/O line
- ✧ Low clamping voltage
- ✧ Low operating voltage:5.0V
- ✧ RoHS compliant

### MAIN APPLICATIONS

- ✧ Cell phone handsets and accessories
- ✧ Personal digital assistants (PDA's)
- ✧ Notebooks, desktops, and servers
- ✧ Portable instrumentation
- ✧ Pagers
- ✧ Microprocessor based equipment



DFN1006-2L



Pin Configuration

### PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lightning) 4A (8/20µs)

### MECHANICAL CHARACTERISTICS

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

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, RH=45%-75%, unless otherwise noted)

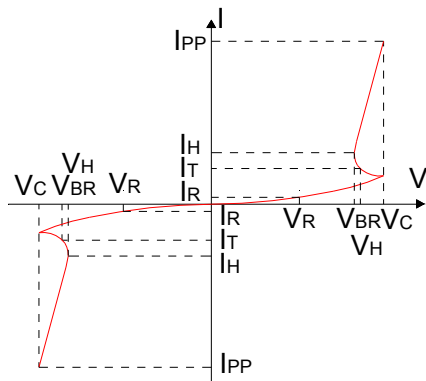
Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20µs waveform	P <sub>PP</sub>	100	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	
Lead soldering temperature	T <sub>L</sub>	260 (10 sec.)	°C
Operating junction temperature range	T <sub>J</sub>	-55 to +125	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$ )

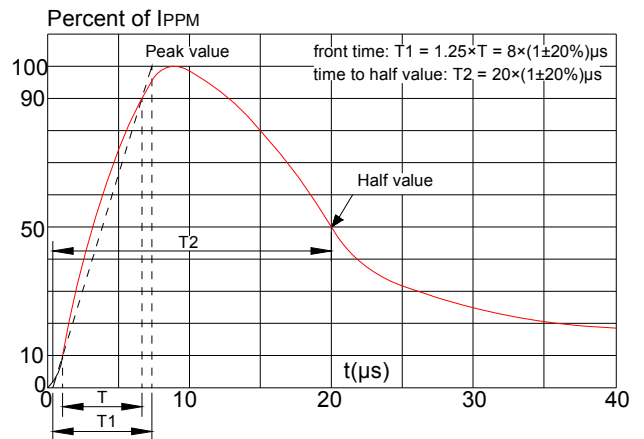
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	$V_{RWM}$				5.0	V
Reverse breakdown voltage	$V_{BR}$	$I_T=1\text{mA}$	5.5			V
Reverse holding voltage	$V_H$	$I_H=50\text{mA}$	5.5			V
Reverse leakage current	$I_R$	$V_{RWM}=5\text{V}$			1.0	$\mu\text{A}$
Peak pulse current	$I_{PP}$	$t_P=8/20\mu\text{s}$			4	A
Clamping voltage	$V_C$	$I_{PP}=1\text{A}, t_P=8/20\mu\text{s}$			9.5	V
		$I_{PP}=4\text{A}, t_P=8/20\mu\text{s}$		14.5	17	V
Junction capacitance	$C_J$	$V_{RWM}=0\text{V}, f=1\text{MHz}$		10	14	pF

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

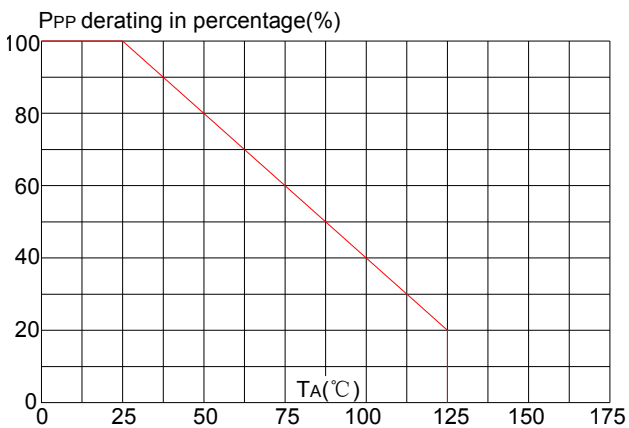
**FIG.1: V- I curve characteristics (Bi-directional)**



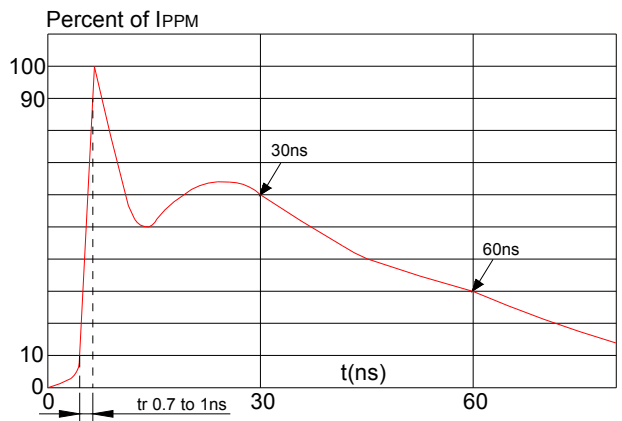
**FIG.2: Pulse waveform (8/20 $\mu\text{s}$ )**



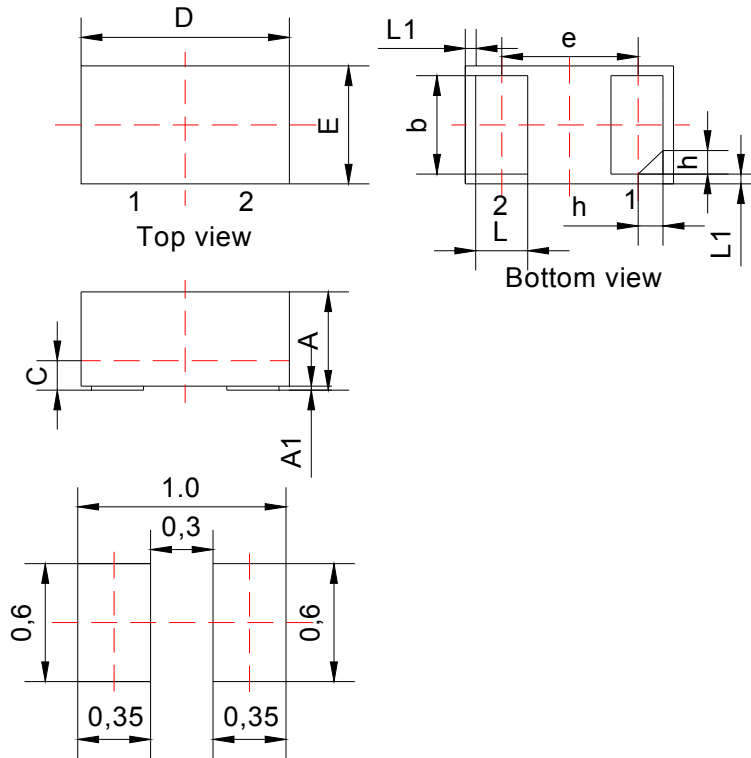
**FIG.3: Pulse derating curve**



**FIG.4: ESD clamping (30kV contact)**



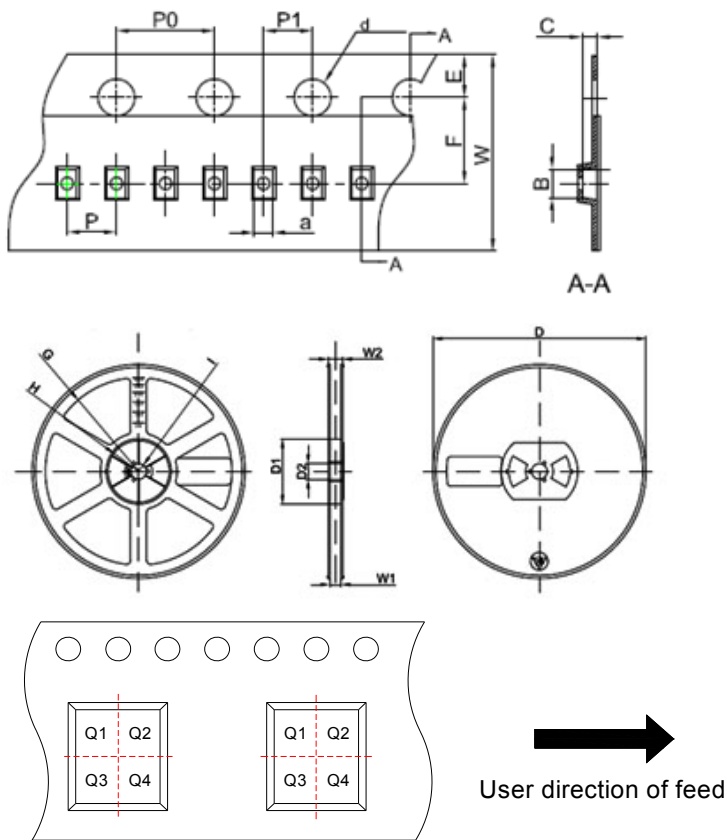
**PACKAGE MECHANICAL DATA**



Recommended soldering footprint(mm)

Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
C	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

**TAPE AND REEL INFORMATION-DFN1006-2L**



Pin 1 quadrant:Q1&Q2

**Packaging Description:**

DFN1006-2L parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 10,000units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
a	0.66	0.026
B	1.15	0.045
C	0.66	0.026
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	2.00	0.079
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

**ORDERING INFORMATION**

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCRIPTION
JEB05DF	DFN1006-2L	10,000	7 inch reel pack

**MARKING CODE**

Part Number	Marking Code
JEB05DF	<div style="border: 1px solid black; padding: 10px; display: inline-block;"> <p style="font-size: 24px; margin: 0;">PB</p> </div>

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