



FEATURES

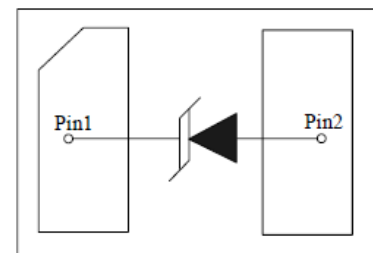
- ✧ Protects one line I/O or power line
- ✧ Low clamping voltage
- ✧ Low leakage current
- ✧ Ultra low capacitance: 85pF(max)
- ✧ RoHS compliant

MAIN APPLICATIONS

- ✧ USB 2.0 power and data line protection
- ✧ High speed data line
- ✧ LAN equipment
- ✧ Digital visual interface (DVI)
- ✧ Video



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) 13A (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: P5

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

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20µs waveform	P _{PP}	200	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	
Lead soldering temperature	T _L	260 (10 sec.)	°C
Operating junction temperature range	T _J	-55 to +125	°C
Storage temperature range	T _{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				5.0	V
Reverse breakdown voltage	V_{BR}	$I_T=1mA$ Pin2 to 1	6.0		8.0	V
Reverse leakage current	I_R	$V_{RWM} = 5V$		0.01	0.1	μA
Forward voltage	V_F	$I_F=15mA$			1.1	V
Peak pulse current	I_{PP}	$t_p=8/20\mu s$			13	A
Clamping voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$		8.5	9.5	V
		$I_{PP}=13A, t_p=8/20\mu s$		12	13	
Junction capacitance	C_J	$V_{RWM} = 0V, f = 1MHz$		75	85	pF

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

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

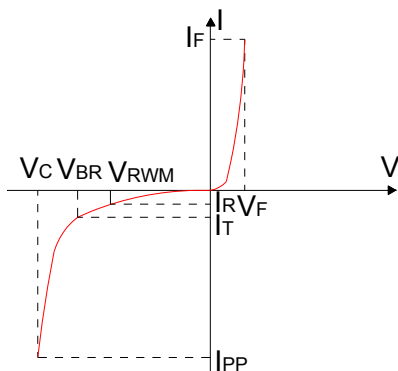


FIG.2: Pulse waveform (8/20μs)

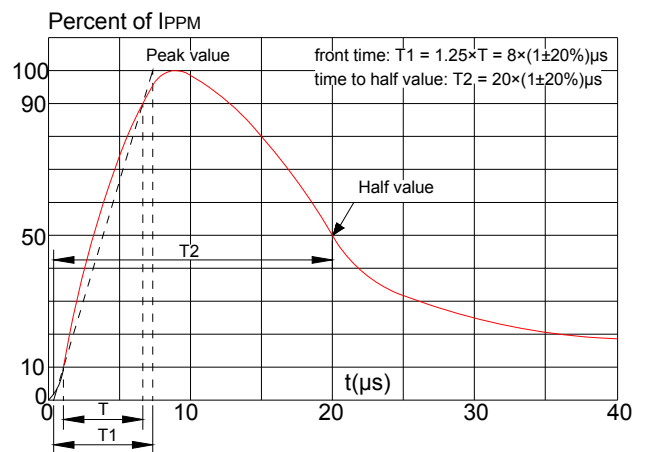


FIG.3: Pulse derating curve

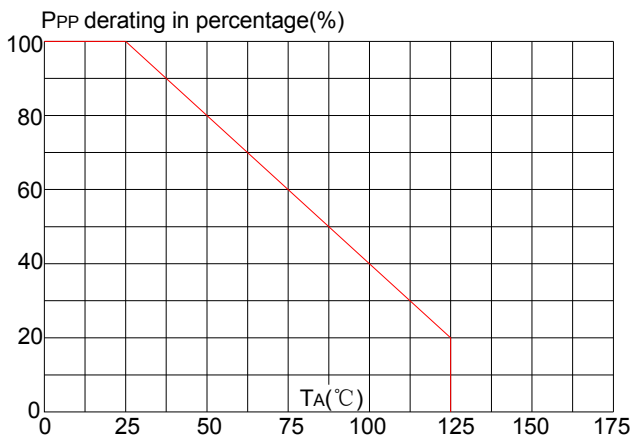
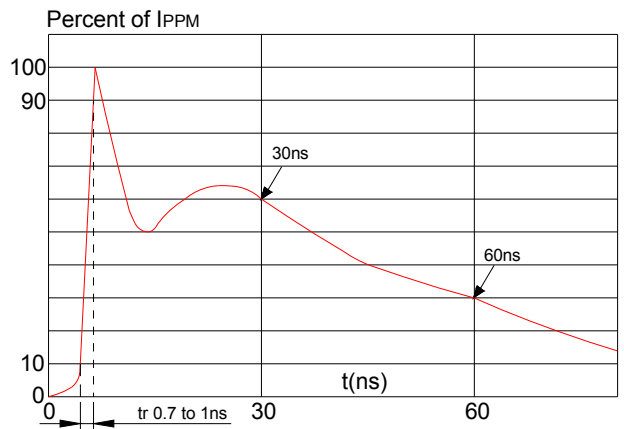
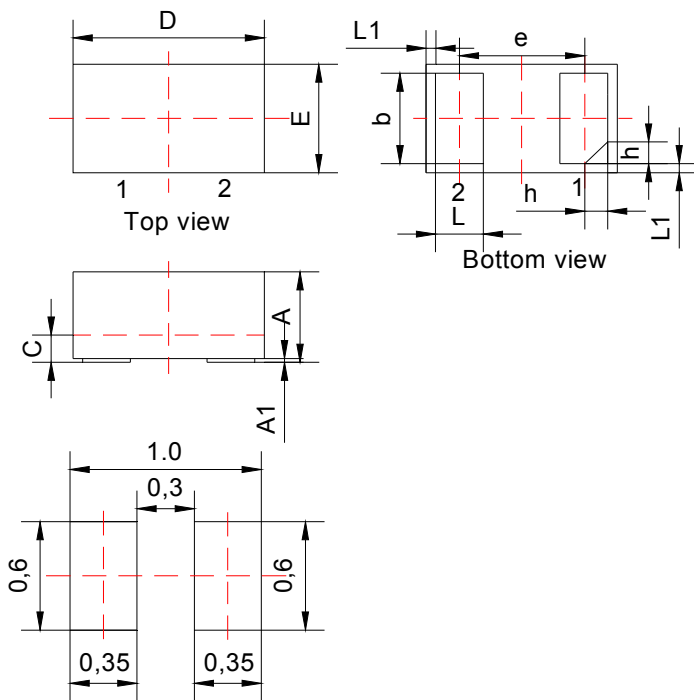


FIG.4: ESD clamping (30KV contact)



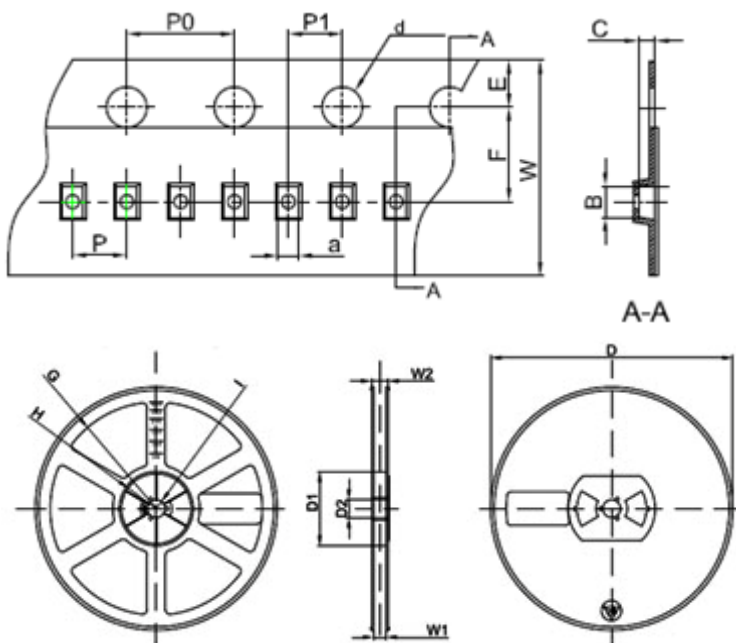
PACKAGE MECHANICAL DATA



Recommended Soldering Footprint

Symbol	Millimeter		
	Min.	Typ.	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

TAPE AND REEL INFORMATION-DFN1006-2L



Packaging Description:

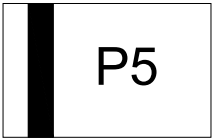
DFN1006-2L parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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	Millimeter	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

OUTLINE	Package	Reel Size	Quantity Per Reel
TAPING	DFN1006-2L	7 Inch	10,000 pcs

MARKING CODE

Part Number	Marking Code
JEU05DF	

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