

RoHS Device
Halogen Free



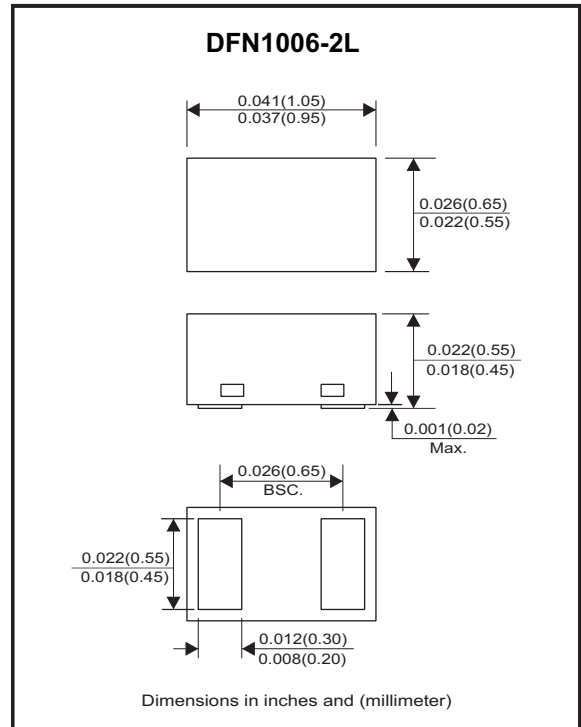
Features

- Bi-directional ESD protection.
- IEC 61000-4-2 (ESD) ; $\pm 30\text{KV}$ (contact)
- Surface mount package.
- High component density.
- Low clamping voltage.
- Low leakage.

Mechanical data

- Case: DFN1006-2L/0402 package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Mounting position: Any.
- Weight: 0.001 grams(approx.).

Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	80	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	5	A
ESD capability	IEC 61000-4-2(air)	ESD	± 30	kV
	IEC 61000-4-2(contact)	ESD	± 30	
Operation temperature range		T_j	$-40\sim+125$	$^\circ\text{C}$
Storage temperature range		T_{STG}	$-55\sim+150$	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			5	V
Diode breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	5.6			V
Reverse current	$V_{RWM} = 5\text{V}$	I_R			0.1	μA
Clamping voltage	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	V_C		8	11	V
	$I_{PP} = 5\text{A}, T_P = 8/20\mu\text{s}$	V_C		13	17	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_J		7		pF

RATING AND CHARACTERISTIC CURVES (PESD9B5VL)

Fig.1- 8/20us Peak Pulse Current Wave Form Acc. IEC61000-4-5

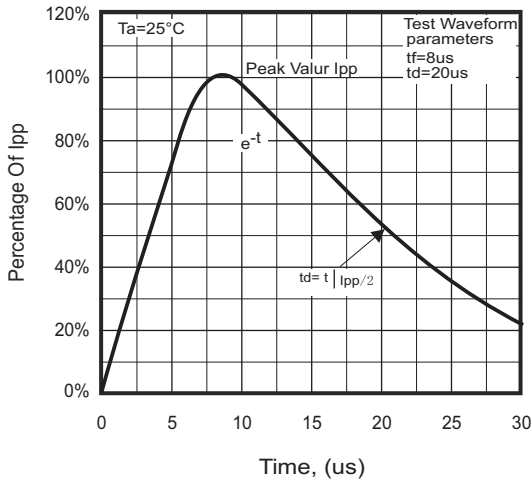


Fig.2 - Typical Capacitance Between Terminals Characteristics

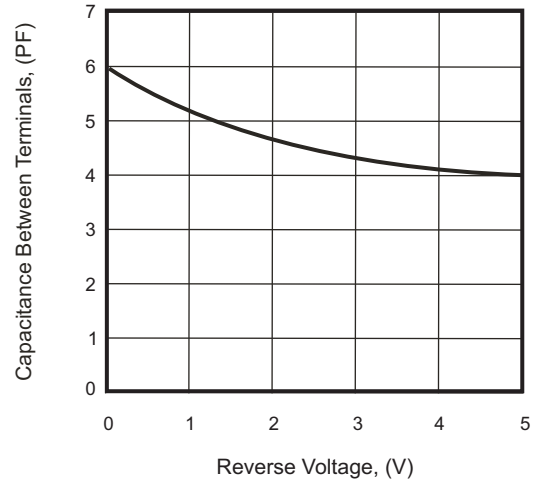


Fig.3 - Typical Clamping Voltage Vs. Peak Pulse Current

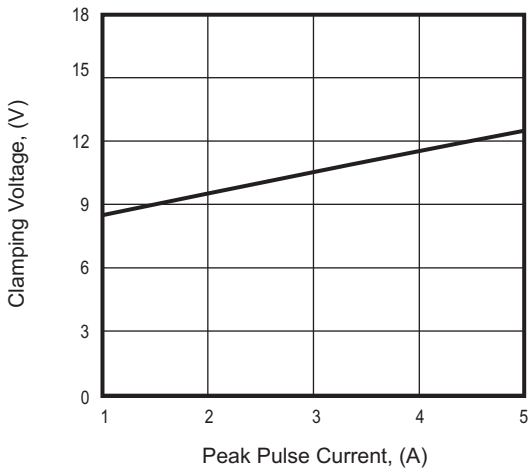
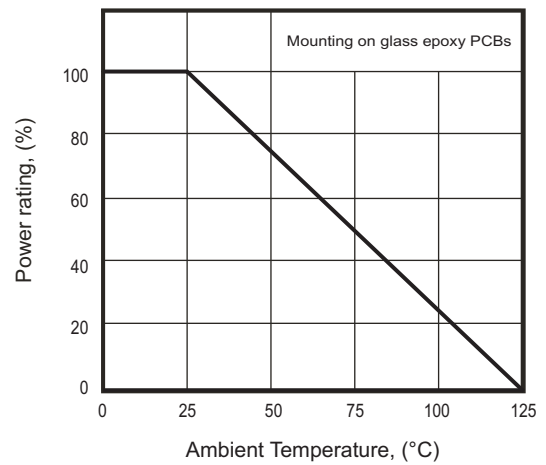
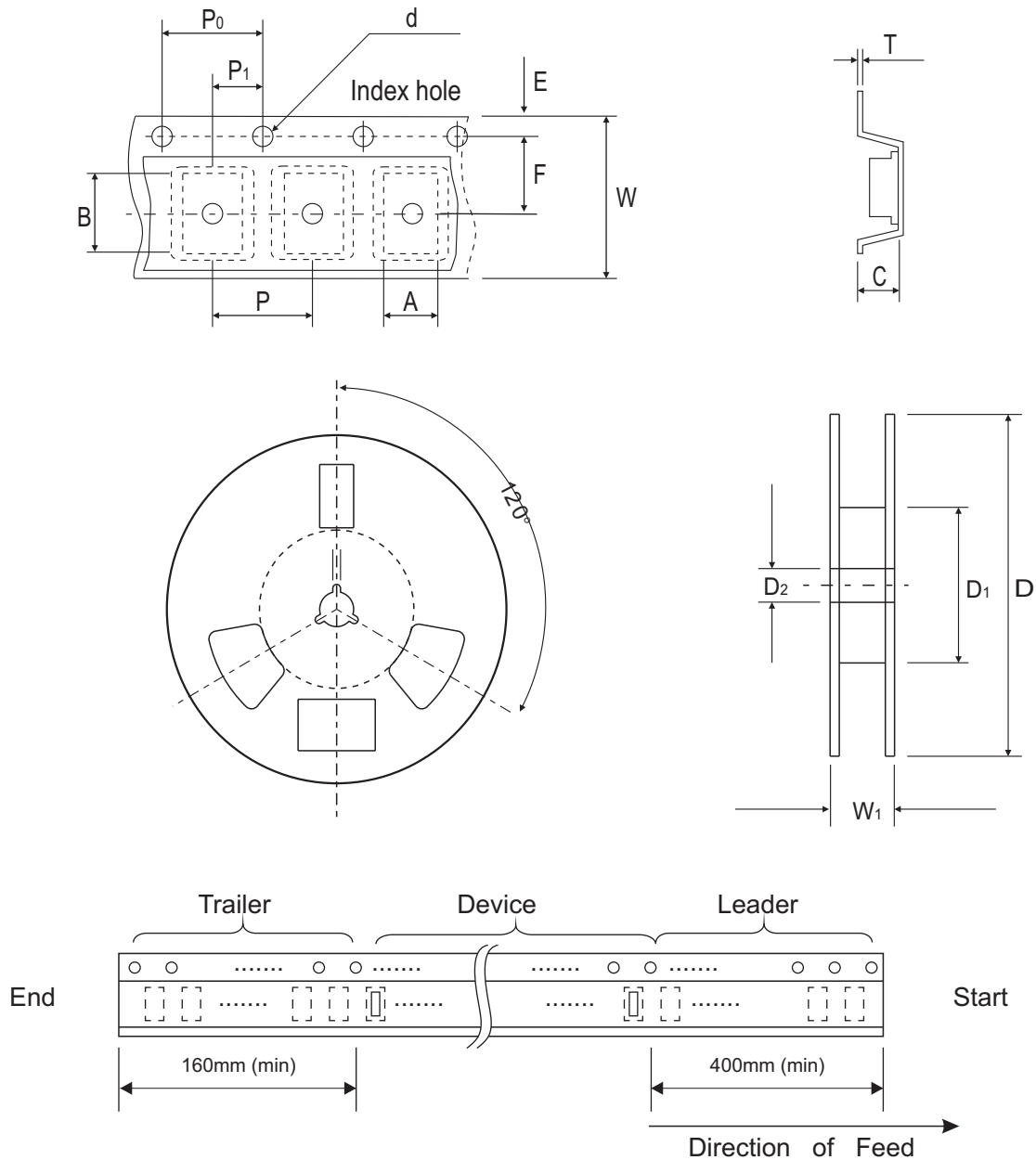


Fig. 4 - Power Rating Derating Curve



Reel Taping Specification

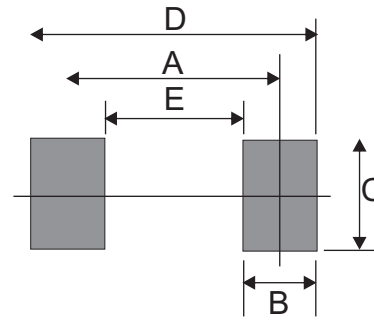


DFN1006-2L	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.75 ± 0.05	1.17 ± 0.05	0.65 ± 0.05	$1.50 + 0.10$ $- 0$	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.030 ± 0.002	0.046 ± 0.002	0.026 ± 0.002	$0.059 + 0.004$ $- 0$	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

DFN1006-2L	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	$0.20 + 0.02$ $- 0.05$	8.00 ± 0.20	$12.00 + 0.50$ $- 0$
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	$0.008 + 0.001$ $- 0.002$	0.315 ± 0.008	$0.472 + 0.020$ $- 0$

Suggested PAD Layout

SIZE	DFN1006-2L	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.60	0.024
D	1.10	0.043
E	0.30	0.012



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN1006-2L	10,000	7