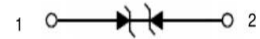


## Features

Bi-Directional Transient Voltage Suppressor  
Low Capacitance and Low Leakage  
Response Time is Typically < 1 ns  
IEC61000-4-2 Level 4 ESD Protection  
ROHS Compliant  
UL-94 V-0 / Green EMC  
Matte Tin Lead finish (Pb-Free)



DFN1006-2L(Pb-Free)



Schematic Diagram

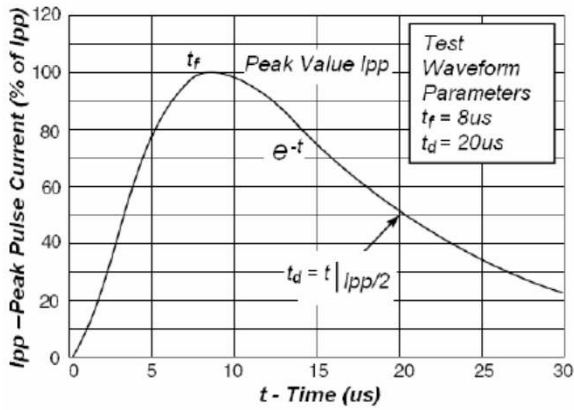
## Absolute Maximum Rating

Symbol	Parameter	Value	Units
VESD-Air	ESD Voltage IEC61000-4-2 Air	±25	kV
VESD-Contact	ESD Voltage IEC61000-4-2 Contact	±20	kV
PD	Total Power Dissipation on FR-5 Board	200	mW
TJ	Junction Temperature	-55 to 150	°C
TSTG	Storage Temperature	-55 to 150	°C
TL	Lead Solder Temperature - Maximum (10 Second Duration)	260	°C

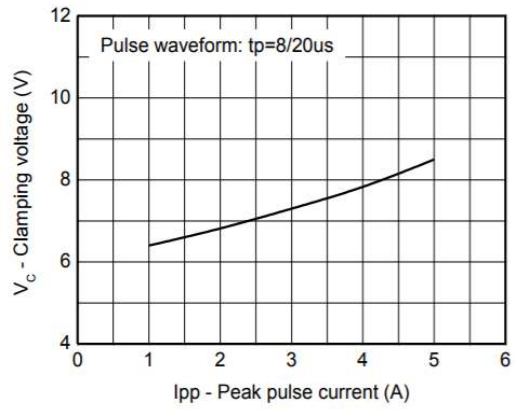
**Electrical Characteristics** (TA=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Peak Voltage				5.0	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.6		8.0	V
$I_{R1}$	Reverse Current	$V_{RWM} = 5\text{V}$			0.5	$\mu\text{A}$
$I_{R2}$	Reverse Current	$V_R = 3.5\text{V}$			0.3	$\mu\text{A}$
Vc	Clamping Voltage	$I_{pp} = 1\text{A}$			9.8	V
Vc	Clamping Voltage	$I_{pp} = 5.5\text{A}$			12.5	V
C	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$			15	pF

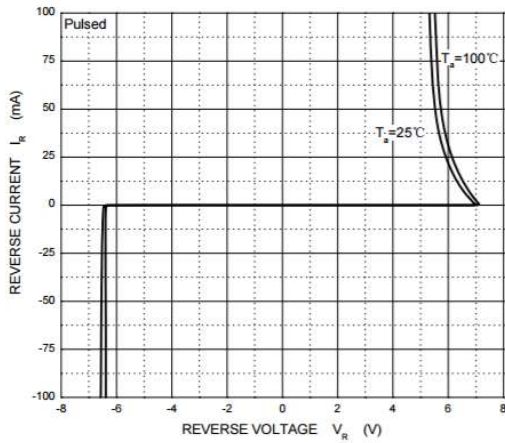
**RATING AND CHARACTERISTIC CURVES**



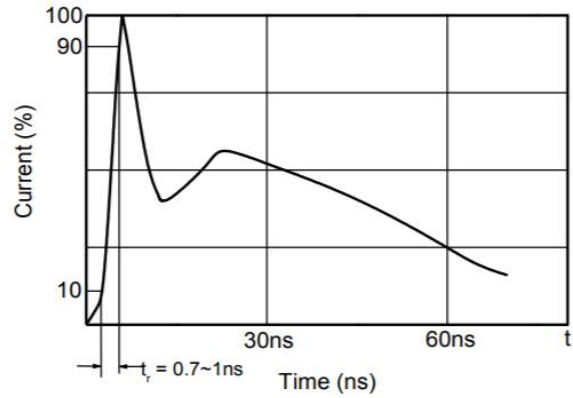
**Pulse Waveform**



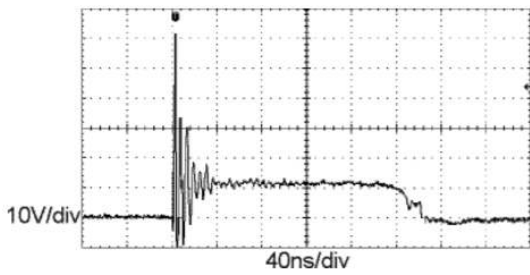
**Clamping voltage vs. Peak pulse current**



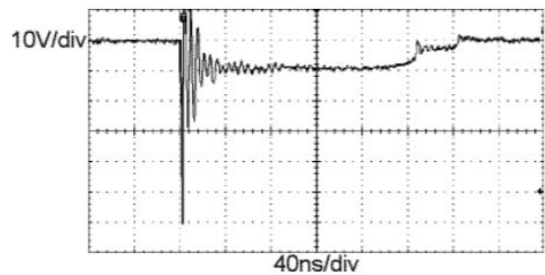
**Reverse Characteristics**



**Contact discharge current waveform per IEC61000-4-2**



**ESD clamping  
(+8kV contact discharge per IEC61000-4-2)**



**ESD clamping  
(-8kV contact discharge per IEC61000-4-2)**

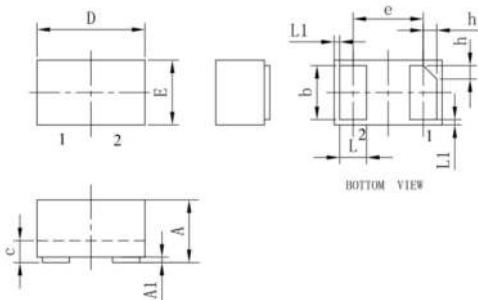
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260°C



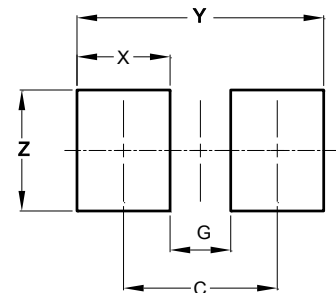
Package Dimensions & Suggested Pad Layout

DFN1006-2L



DFN1006-2L

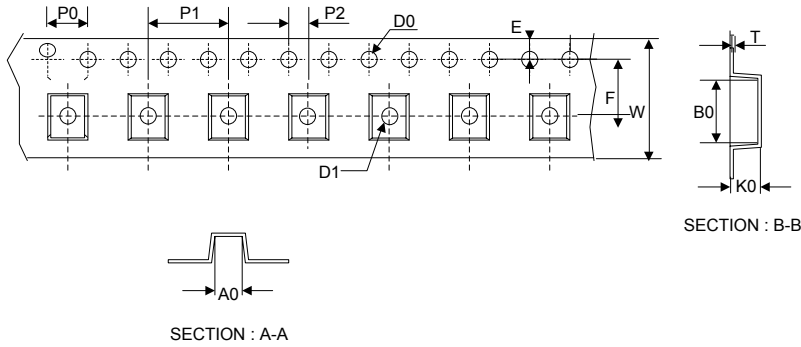
	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (mm)	Typ. (mm)	Max. (mm)
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007



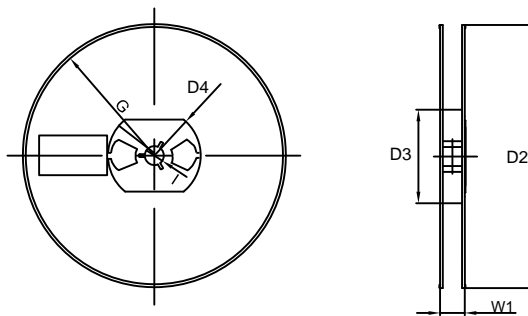
Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
Y	1.10
Z	0.65

Tape & reel specification

Tape



7" Reel



Symbol	Dimension (mm)
P0	4.00±0.20
P1	2.00±0.20
P2	1.55±0.20
D0	1.55±0.20
D1	0.40±0.20
E	1.55±0.25
F	3.60±0.20
W	8.00±0.20
A0	1.00±0.20
B0	1.40±0.20
K0	0.75±0.20
T	0.20±0.20
D2	177.0±5.0
D3	55Min.
D4	R24.6±2.0
G	R82.0±2.0
I	13.0±2.0
W1	10.20±3.0

Quantity: 3000PCS