

Features

- 80W Peak Pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- RoHS compliant
- Protecting one bi-directional lines



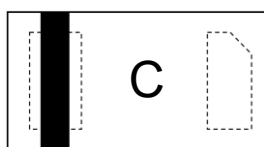
DFN1006-2L bottom view



Schematic diagram

Application

- Cellular phones audio
- MP3 players I Digital cameras
- Portable applications
- Mobile telephone



Marking and pin assignment



Halogen-Free

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Symbol	Parameter	Value	Unit
P_D	Total Power Dissipation on FR-5 Broad	150	mW
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	°C
T_{STG}	Storage temperature	-55 to 150	°C
T_{OPR}	Operating temperature	125	°C
V_{ESD}	ESD (IEC61000-4-2 air discharge) @25°C	±20	kV
V_{ESD}	ESD (IEC61000-4-2 contact discharge) @25°C	±25	kV

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
ESD8D5V0C	DFN1006-2L	C	10,000	150,000	600,000	7"reel

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

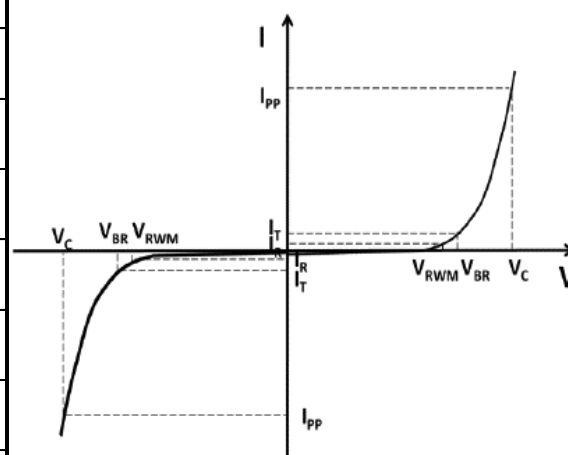
Device Type	V_{RWM} (Volts)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 1) (Volts)		I_T (mA)	I_{PP+} (A)	$V_C @ \text{Max } I_{PP+}$ (Volts)	P_{PK+} (W)	$C @ V_R = 0\text{V}, f = 1\text{MHz}$ (pF)
	MAX	MAX	MIN	MAX		MAX	MAX	MAX	MAX
ESD8D5V0C	5.0	0.5	5.6	--	1.0	5.0	12	60	10

+ Surge current waveform per Figure 1.

Note 1: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

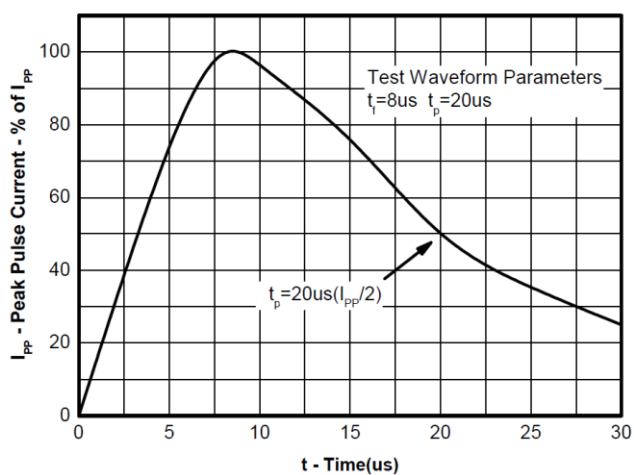
ELECTRICAL PARAMETER

Symbol	Parameter
V_{RWM}	Reverse Standoff Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
V_F	Forward Voltage @ I_F
I_F	Forward Current

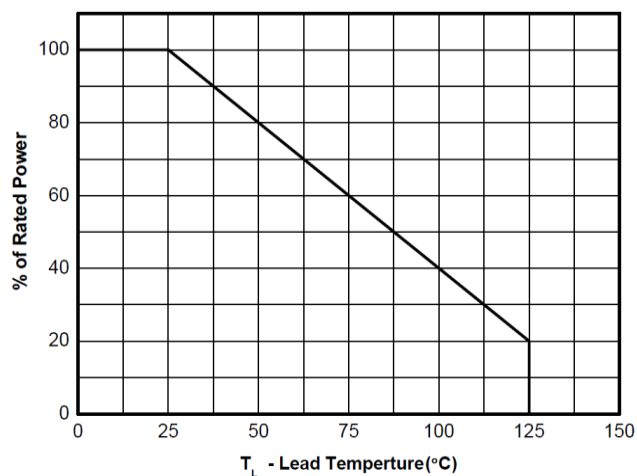


V-I characteristics for a uni-directional TVS

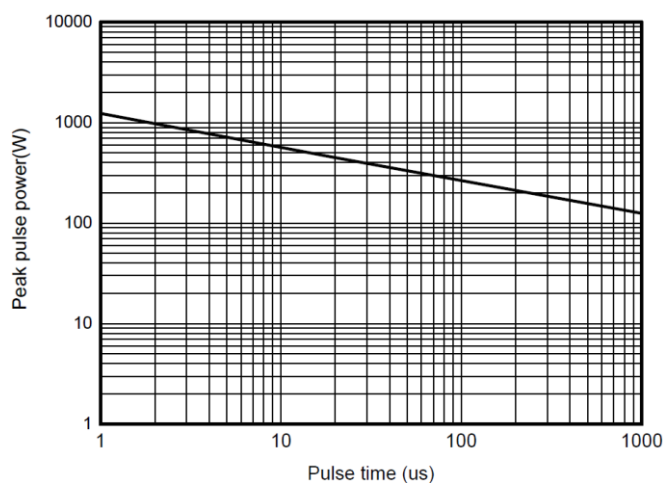
Typical Operating Characteristics



Pulse Waveform

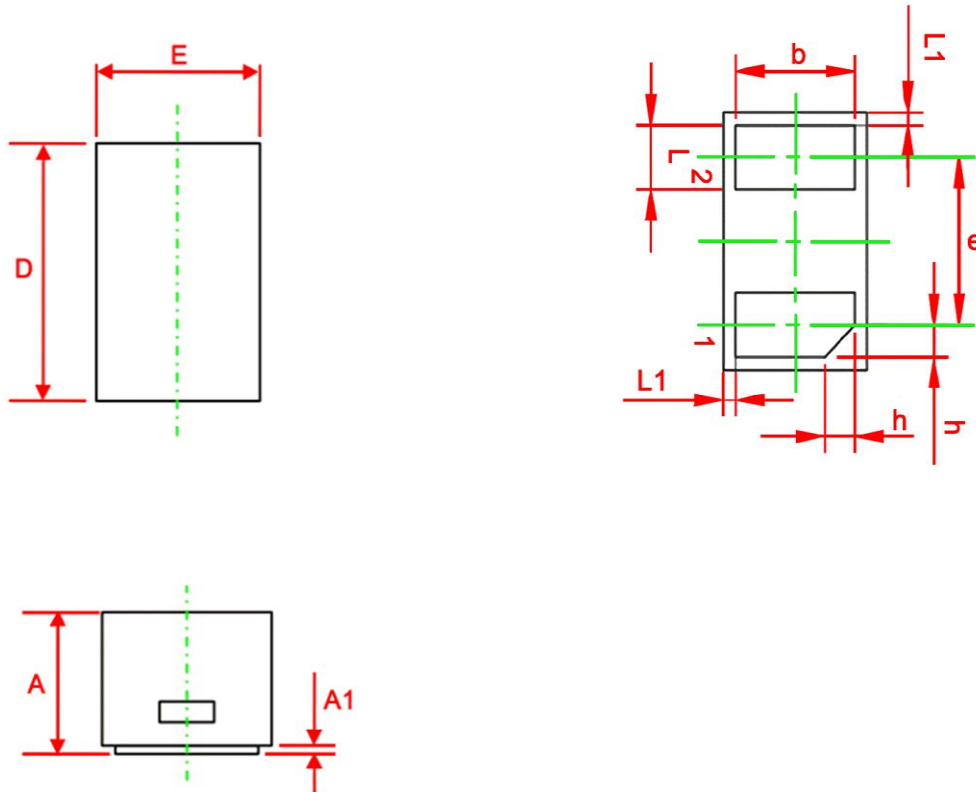


Power Derating Curve



Non repetitive peak pulse power vs. Pulse time

DFN1006-2L Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
L1	0.200	0.300	0.008	0.012
L2	0.200	0.300	0.008	0.012
A	0.450	0.550	0.018	0.022
b	0.450	0.550	0.018	0.022
e	0.64REF		0.025REF	
L	0.220	0.300	0.008	0.012
h	0.070	0.170	0.003	0.007