



## Discription

The D8V0L1B2LPQ-7B is designed to protect voltage sensitive components from damage or latch-up due to ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed ESD for board level. Because of its small size and bi-directional design, it is ideal for use in cellular phones, MP3 players, and portable applications that require audio line protection.

## Features

- ★ IEC61000-4-2Level4ESDProtection
  - $\pm 25\text{kV}$  Contact Discharge
  - $\pm 25\text{kV}$  Air Discharge
- ★ 200W Peak pulse Power (8/20us)
- ★ Low clamping voltage
- ★ Workingvoltage:8V
- ★ Low leakage current
- ★ RoHS compliant
- ★ Protecting one bi-directional lines
- ★ Junction capacitance:10pF Typ.



DFN1006-2L  
(X1-DFN1006-2)



Circuit Diagram

## Applications

- ★ Cellular handsets and accessories
- ★ Battery Protection
- ★ Notebooks & Handhelds
- ★ Mobile Phones
- ★ MP3P layers
- ★ Peripherals

## Ordering Information

Product ID	Pack	Qty(PCS)
D8V0L1B2LPQ-7B	DFN1006-2L(X1-DFN1006-2)	10000



### Absolute Ratings( $T_{amb} = 25^{\circ}\text{C}$ )

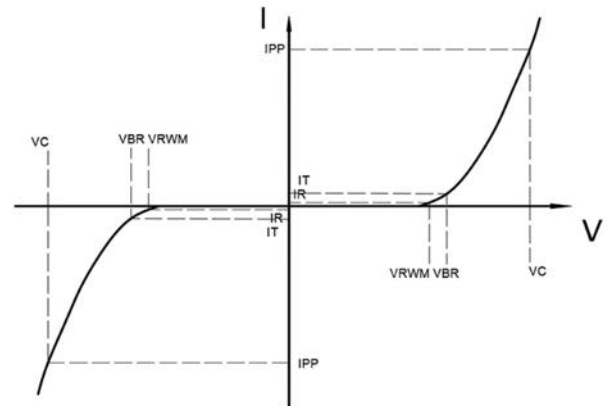
Parameters	Symbol	Min	Max	Unit
Peak pulse power ( $t_p=8/20\mu\text{s}$ )@ $25^{\circ}\text{C}$	$P_{pk}$	-	200	W
ESD (IEC61000-4-2 air discharge) @ $25^{\circ}\text{C}$	$V_{ESD}$	-	$\pm 25$	kV
ESD (IEC61000-4-2 contact discharge) @ $25^{\circ}\text{C}$	$V_{ESD}$	-	$\pm 25$	kV
Junction temperature	$T_J$	-	150	$^{\circ}\text{C}$
Operating temperature	$T_{OP}$	-55	150	$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-55	150	$^{\circ}\text{C}$
Lead temperature	$T_L$	-	260	$^{\circ}\text{C}$

### Electrical Characteristics

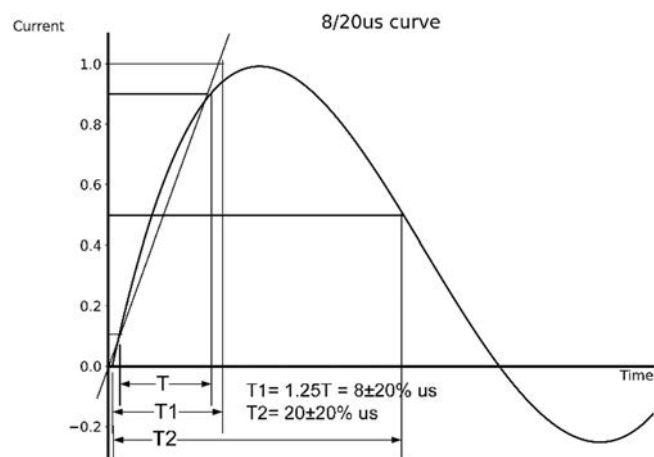
Parameters	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-off Voltage	$V_{RWM}$				8.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	9.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=8\text{V}$			1.0	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}; t_p=8/20\mu\text{s}$		13		V
Clamping Voltage	$V_C$	$I_{PP}=6\text{A}; t_p=8/20\mu\text{s}$		16		V
Junction Capacitance	$C_J$	$V_R=0\text{V}; f=1\text{MHz}$		10		pF



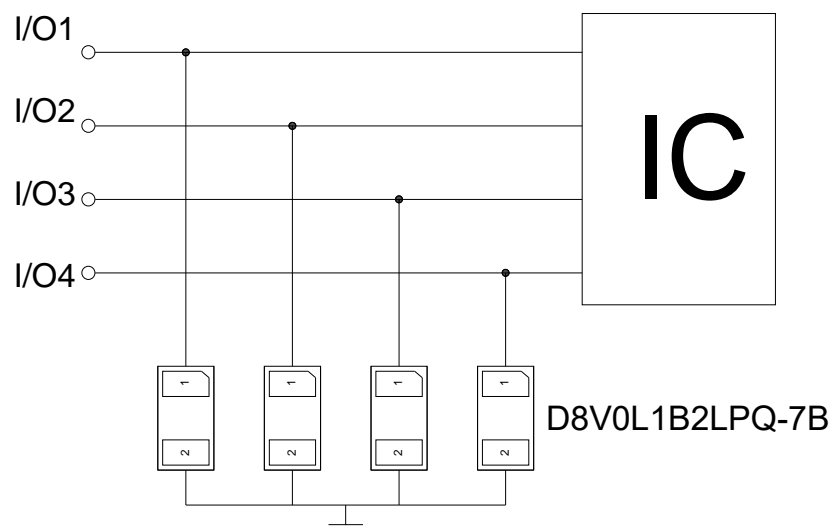
Symbol	Parameters
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$



## Typical Characteristics

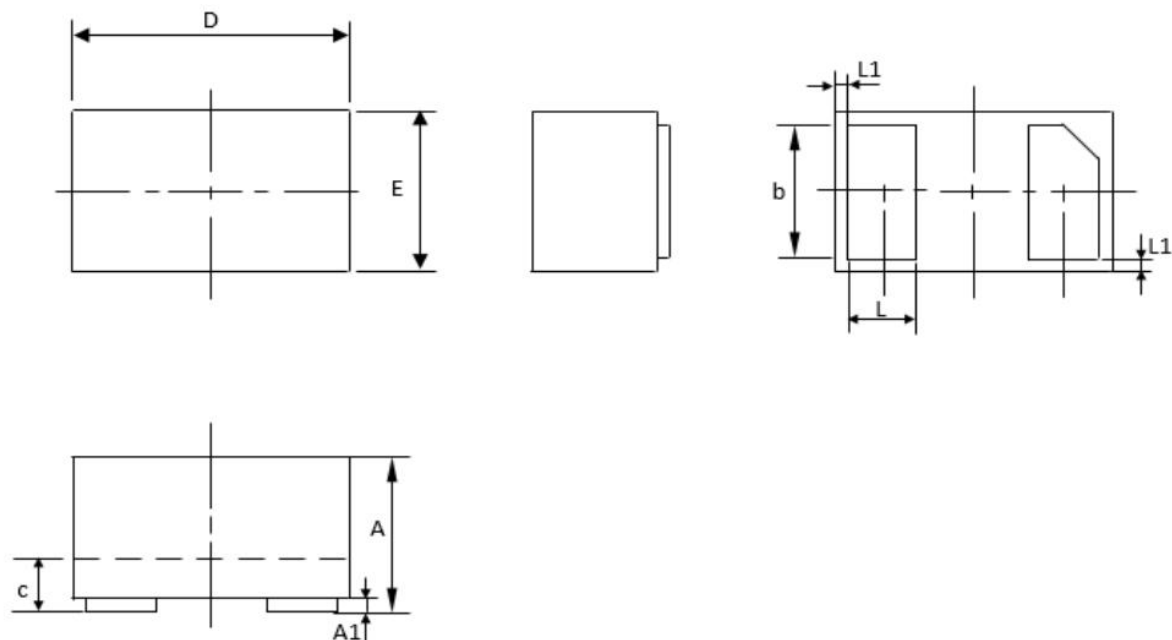


## Typical Application





## Outline And Dimensions



DFN1006-2L(X1-DFN1006-2)			
Dim	Min	Typ.	Max
A	0.46	0.48	0.50
A1	0	0.02	0.05
b	0.45	0.5	0.55
c	0.1	0.12	0.14
D	0.95	1.00	1.05
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.035	0.05	0.065
h	0.07	0.12	0.17
All Dimensions in mm			



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