

### General Description

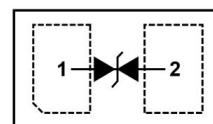
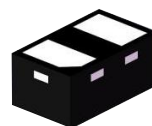
The PESDNC2FD7VB is designed to protect voltage sensitive components from damage or latch-up due to ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD for board level. Because of its small size and bi-directional design, it is ideal for use in cellular phones, and portable applications that require audio line protection.

### Specification Features

- Miniaturized packaging size suitable for high-density applications: nom 0.039" x 0.024" (1.0x0.6mm)
- Standard Capacitance 20 pF
- Low Clamping Voltage:  $V_C = 16V @ I_{PP} = 6.5A$
- Reverse Working (Stand-off) Voltage: 7.0V
- Low Leakage current
- Response Time is Typically < 1 ns

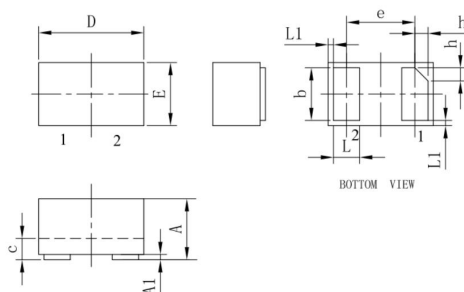
### Application

- Smartphones, tablet computers
- Blu-ray and DVD recorders and players
- Video equipment and accessories



Schematic Diagram

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

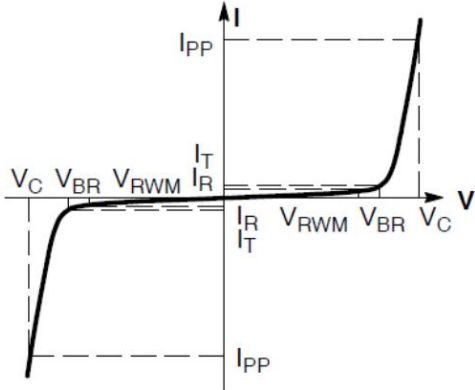
### Absolute Maximum Rating

Rating	Symbol	Value	Unit
Peak pulse power ( $t_p = 8/20\mu s$ )	$P_{PK}$	105	W
ESD according to IEC61000-4-2 air discharge	$V_{ESD}$	$\pm 30$	kV
ESD according to IEC61000-4-2 contact discharge		$\pm 30$	
Operating Temperature Range	$T_J$	-55~150	$^{\circ}C$
Storage temperature	$T_{STG}$	-55~150	$^{\circ}C$

# PESDNC2FD7VB

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

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$P_{PK}$	Peak Power Dissipation
C	Max. Capacitance @ $V_R = 0$ and freq.=1 MHz



Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	$V_{RWM}$				7.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	7.6		9.0	V
Reverse Leakage Current	$I_R$	$V_{RWM}=\pm 7.0\text{V}$			100	nA
Clamping Voltage	$V_C$	$I_{PP}=1.0\text{A}$ , $t_p=8/20\mu\text{s}$		9	12	V
Clamping Voltage	$V_C$	$I_{PP}=6.5\text{A}$ , $t_p=8/20\mu\text{s}$		10	16	V
Junction Capacitance	$C_J$	$V_R=0\text{V}$ , $f=1\text{MHz}$		15	20	pF