



### Discription

Low capacitance bidirectional ElectroStatic Discharge (ESD) protection diode in a DFN1006(SOD-882) leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.



DFN1006-2L

### Features

- ★ Bidirectional ESD protection of one line
- ★ Low operating voltage:5.0V
- ★ Low clamping voltage VC = 10 V@100A
- ★ Response time is typically<1ns
- ★ Ultra Low Leakage:nA Level
- ★ IEC 61000-4-2: level 4 (ESD)
- ★ IEC 61000-4-5 (surge): IPPMQ100 A



Circuit Diagram

### Applications

- ★ Portable electronics
- ★ Computersandperipherals
- ★ Audio and video equipment
- ★ Cellular handsets and accessories
- ★ Communication systems
- ★ Power supplies

### Ordering Information

Product ID	Pack	Qty(PCS)
STN101050BL90	DFN1006-2L	10000



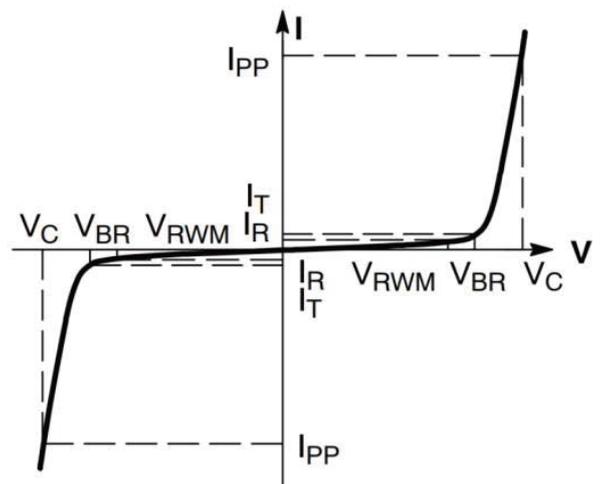
### Absolute Ratings( $T_{amb} = 25^{\circ}\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	$P_{PPM}$	45	W
Peak Pulse Current( $t_p = 8/20\mu\text{s}$ )	$I_{PPM}$	3	A
Maximum lead temperature for soldering during 10s	$T_L$	260	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^{\circ}\text{C}$
Operating Temperature Range	$T_{OP}$	-40 to +125	$^{\circ}\text{C}$
Maximum junction temperature	$T_j$	150	$^{\circ}\text{C}$
ESD voltage IEC 61000-4-2 (air discharge)	$V_{ESD}$	10	kV
ESD voltage IEC 61000-4-2 (contact discharge)	$V_{ESD}$	15	kV

### Electrical Characteristics

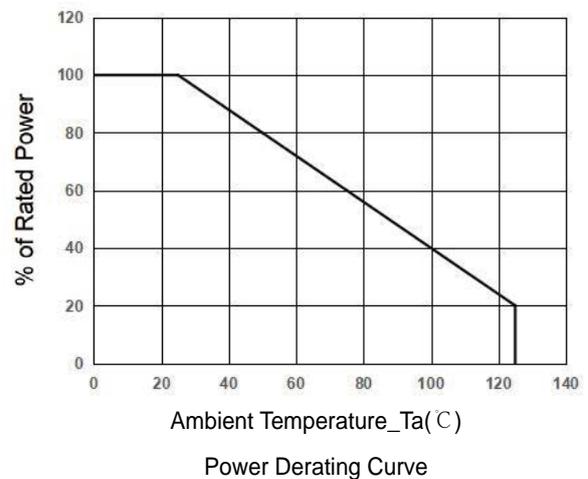
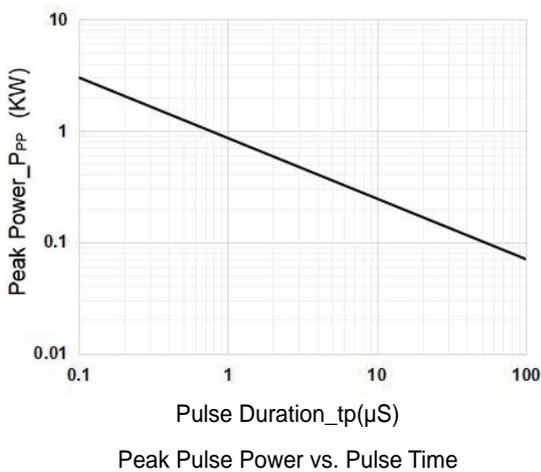
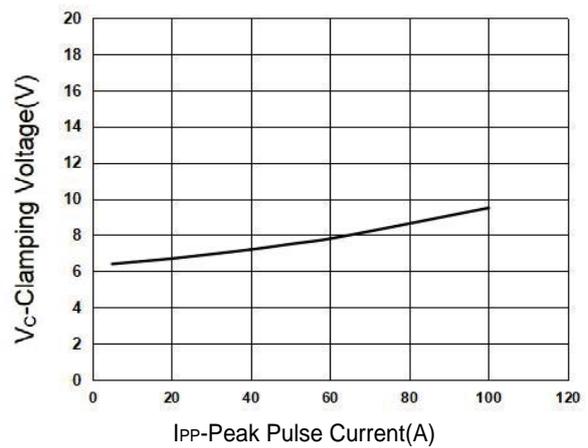
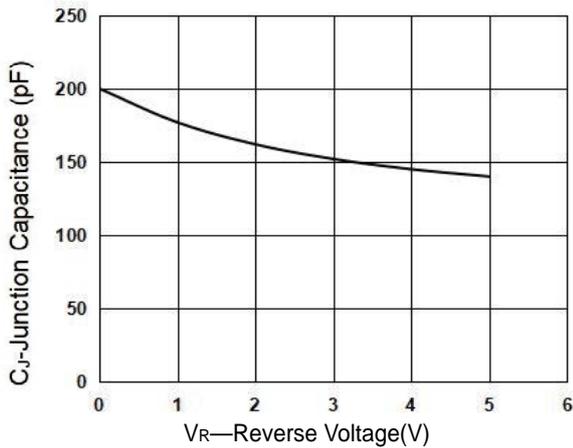
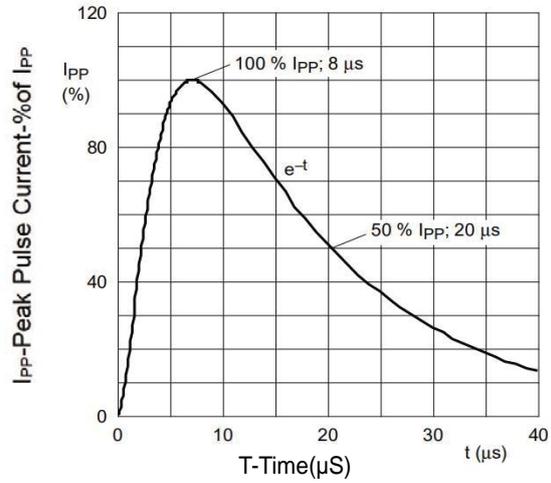
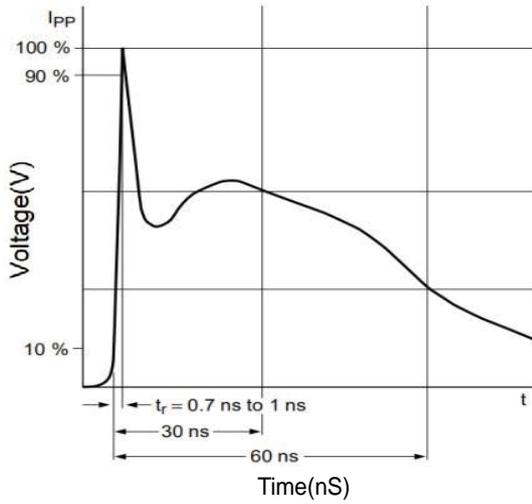
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	$V_{RWM}$	--	--	5.0	V	
Breakdown Voltage	$V_{BR}$	6.5	--	90	V	$I_T=1\text{mA}$
Leakage Current $I_{Leak}$	$I_R$	--	--	1.0	$\mu\text{A}$	$V_{RWM}=5.0\text{V}$
Clamping Voltage	$V_C$	--	--	15.0	V	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$
Junction Capacitance	$C_J$	--	--	0.6	pF	$V_R=0\text{V}, f=1\text{MHz}$

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



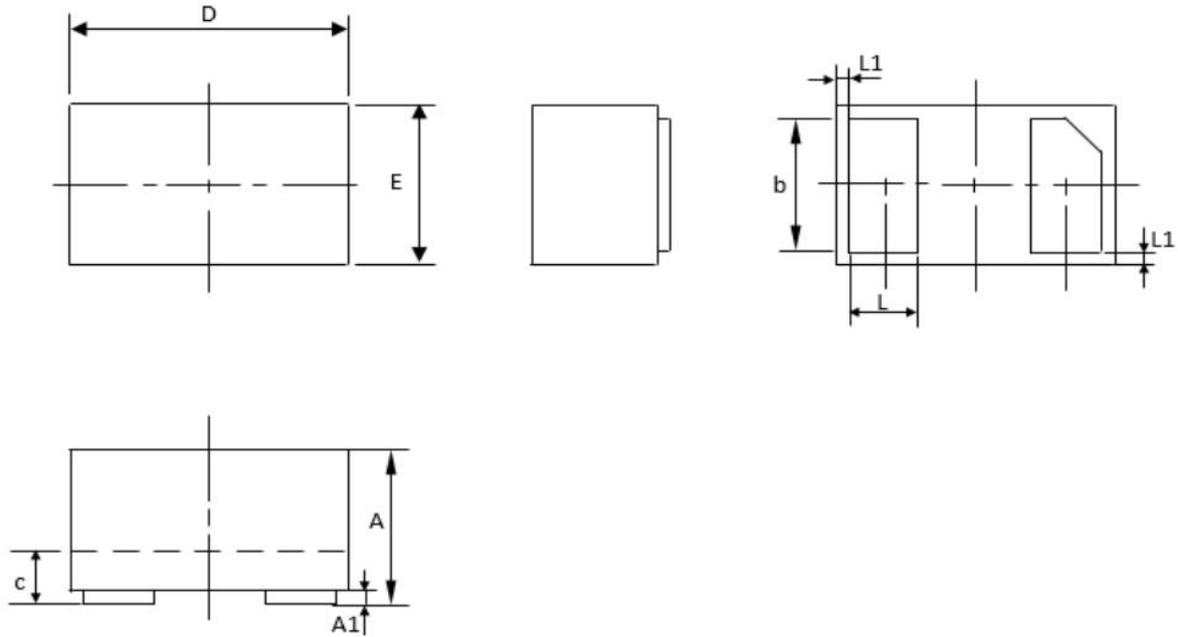


### Typical Characteristics





### Outline And Dimensions



DFN1006-2L			
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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