Discription

The SPHV15-01KTG-C 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.

DFN1006-2L

Features

★ IEC 61000-4-2 Level 4 ESD Protection
- ± 30kV Contact Discharge
- ± 30kV Air Discharge

★ 250W Peak pulse Power (8/20us)
★ Low clamping voltage
★ Working voltage: 15V
★ Low leakage current
★ RoHS compliant
★ Protecting one bi-directional lines
★ Junction capacitance:25pF Typ.

Circuit Diagram

Applications

★ Cellular handsets and accessories
★ Battery Protection
★ Notebooks & Handhelds
★ Mobile Phones
★ MP3 Players
★ Peripherals

Ordering Information

Product ID	Pack	Qty(PCS)
SPHV15-01KTG-C	DFN1006-2L	10000

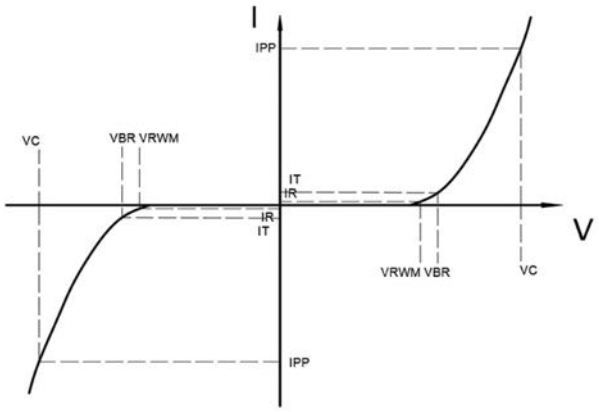
Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20 μ s)	288	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_{op}	Operating Temperature Range	-40 to +125	°C
T_j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±30 ±30	KV
I_{PP}	Peak pulse current (tp=8/20us)@25°C	9	A

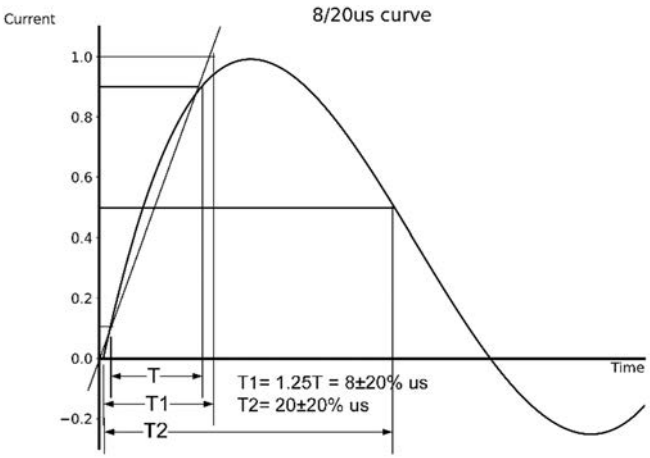
Electrical Characteristics

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				15.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	16.5			V
I_R	Reverse Leakage Current	V_{RWM} =15.0V			1.0	uA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs		19.0	22.0	V
		I_{PP} = 9A, t_p = 8/20μs		28.0	28.0	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		25		pF

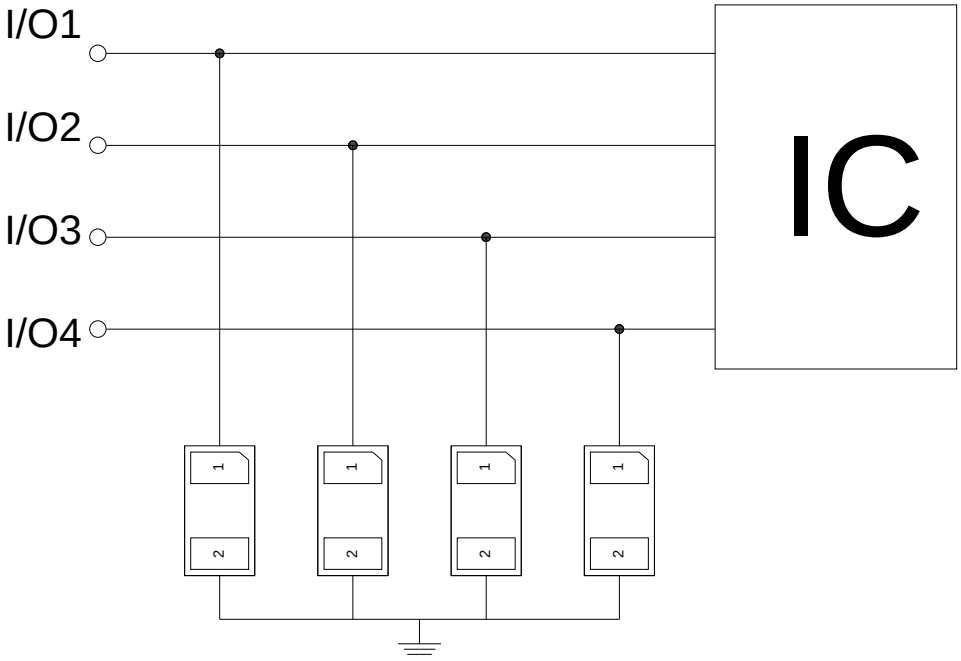
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



Typical Characteristics

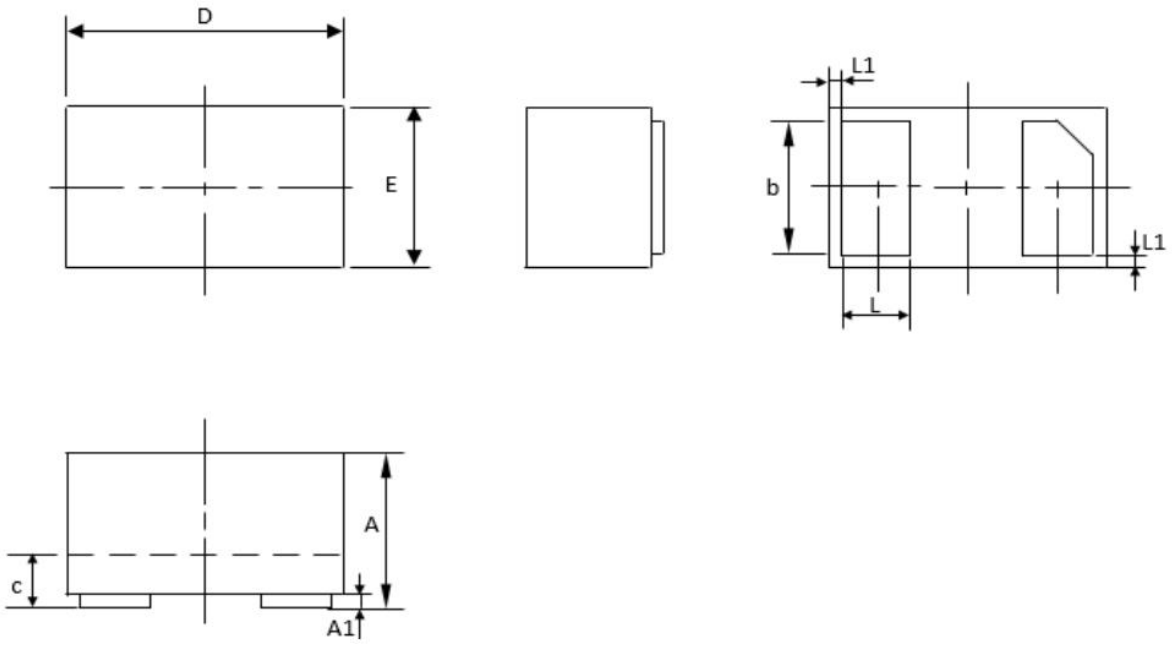


Typical Application



Typical Interface Application

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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