SPHV15-01KTG
ESD PROTECTION DIODE

Discription

The SPHV15-01KTG 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. Be cau se of itssmall 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

- ★ IEC61000-4-2Level4ESDProtection
  - ±12kV Contact Discharge
  - ±15kV Air Discharge
- ★ 250WPeakpulsePower(8/20us)
- ★ Low clamping voltage
- ★ Workingvoltage:15V
- ★ Low leakage current
- ★ RoHS compliant
- ★ Protecting one bi-directional lines
- ★ Junction capacitance: 13pF Typ.

Circuit Diagram

Applications

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

Ordering information

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

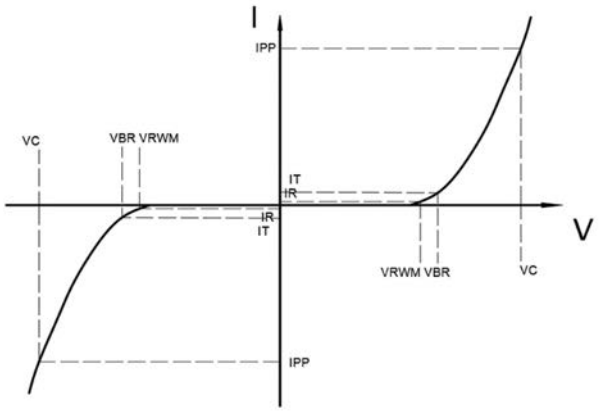
Absolute Ratings(Tamb = 25°C)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25℃	P_{pk}	-	250	W
Peak pulse current (tp=8/20us)@25℃	I_{PP}		7	A
ESD (IEC61000-4-2 air discharge) @25℃	V_{ESD}	-	±15	kV
ESD (IEC61000-4-2 contact discharge) @25℃	V_{ESD}	-	±12	kV
Junction temperature	T_J	-	150	℃
Operating temperature	T_{OP}	-40	125	℃
Storage temperature	T_{STG}	-55	150	℃
Lead temperature	T_L	-	260	℃

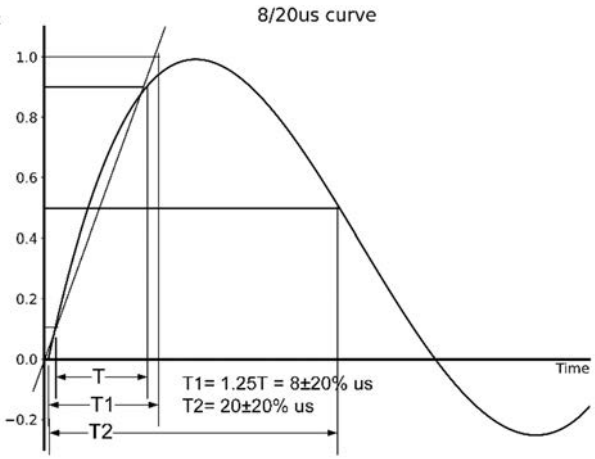
Electrical Characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				15	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	16.5			V
Reverse Leakage Current	I_R	V_{RMW} =15V			1	uA
Clamping Voltage	V_C	I_{PP}=1A; tp=8/20us		22		V
Clamping Voltage	V_C	I_{PP}=7A; tp=8/20us		35		V
Junction Capacitance	C_J	I/O to GND; VR=0V; f=1MHz		13		pF

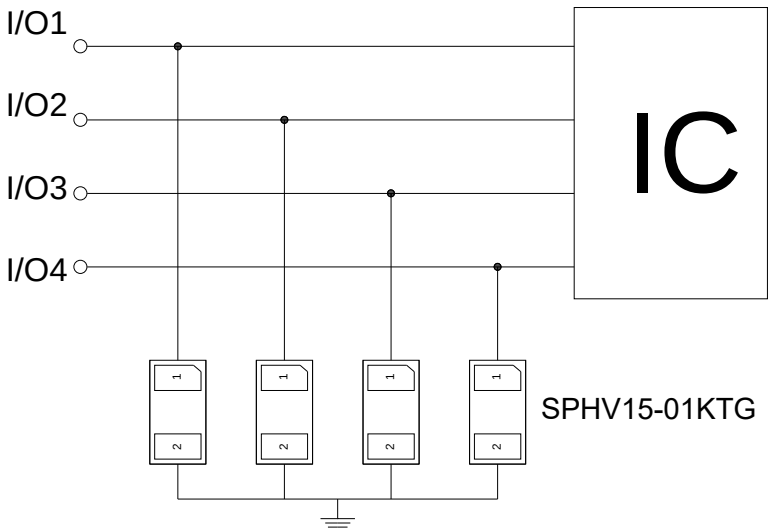
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



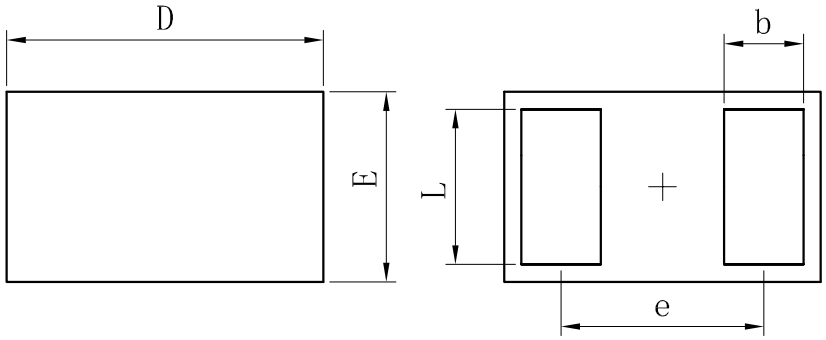
Typical Characteristics



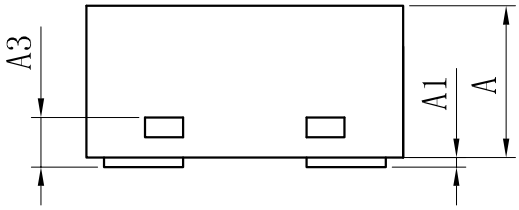
Typical Application



Outline And Dimensions



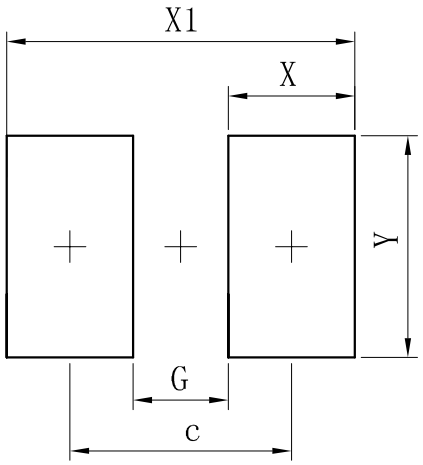
TOP VIEW BOTTOM VIEW



SIDE VIEW

DFN1006-2L			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			

Soledering Footprint



Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

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