

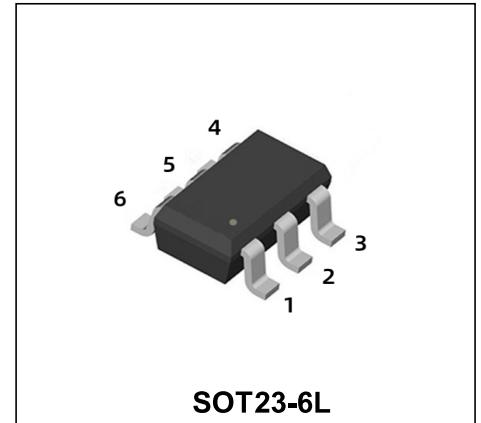
Transient Voltage Suppressor

Features

- ◆Low capacitance: 0.45pF(typ.)
- ◆Reverse working voltage: 5V
- ◆IEC 61000-4-2 ±25 KV contact ±25 KV Air
- ◆IEC 61000-4-4 (EFT) 60A
- ◆IEC 61000-4-5 (Lightning 8/20μs): 3.5A

Application

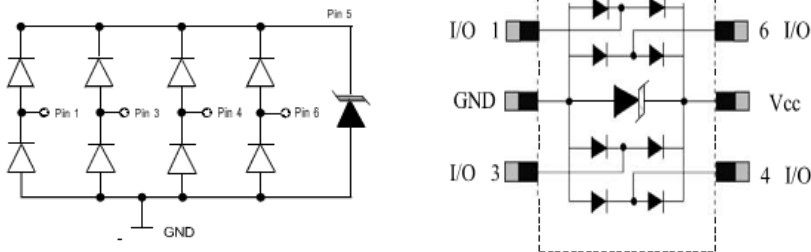
- ◆Desktop, Servers and Notebooks
- ◆USB2.0 data line protection
- ◆HDMI 1.4/2.0
- ◆Industrial instruments
- ◆Digital visual interfaces (DVI)



Marking Code

ESD5VUT236

C16**



Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	value	Unit
VESD	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	±25	kV
		IEC 61000-4-2; Air Discharge	±25	kV
P _{PP}	Peak Pulse Power	t _P = 8/20 μs	45	W
I _{PPM}	Rated Peak Pulse Current	t _P = 8/20 μs	3.5	A
T _L	Lead Soldering Temperature	-	260(10seconds)	°C
T _J	Junction Temperature	-	-55 to +125	°C
T _{stg}	Storage Temperature Range	-	-55 to +125	°C

Electrical Characteristics(TA = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Working Voltage	TA = 25 °C	-	-	5.0	V
V _{BR}	Breakdown Voltage	IT = 1mA	6.8	-	-	V
I _R	Reverse Leakage Current	VRWM = 5 V; TA = 25 °C	-	5	30	nA
I _{PPM}	Peak Pulse Current	t _P = 8/20 μs	-	-	3.5	A
V _C	Clamping Voltage	I _{PP} = 3.5A, t _P = 8/20 μs	-	10	13	V
R _{DYN}	Dynamic Resistance	IO to GND	-	0.49	-	Ω
C _J	Junction Capacitance	VR = 0V, f = 1 MHz IO to GND	-	0.42	0.55	pF

Typical Characteristics

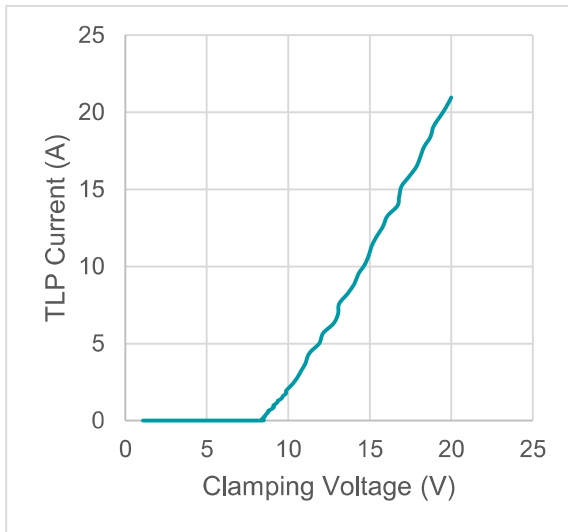


Fig.1 TLP Curve

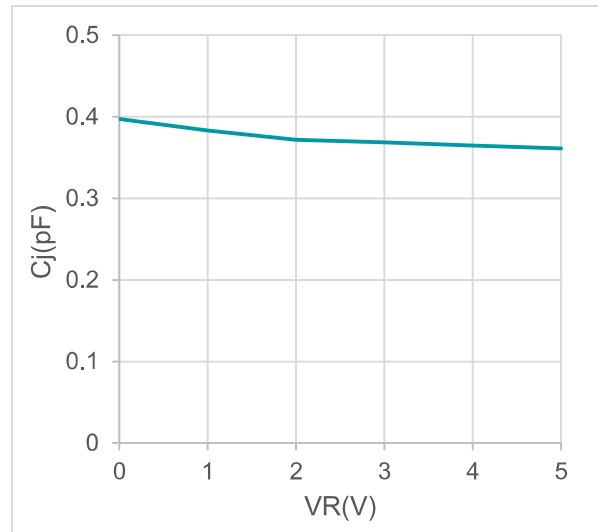


Fig.2 Junction Capacitance @ f=1MHz Surge Clamping voltage (IEC61000-4-5)

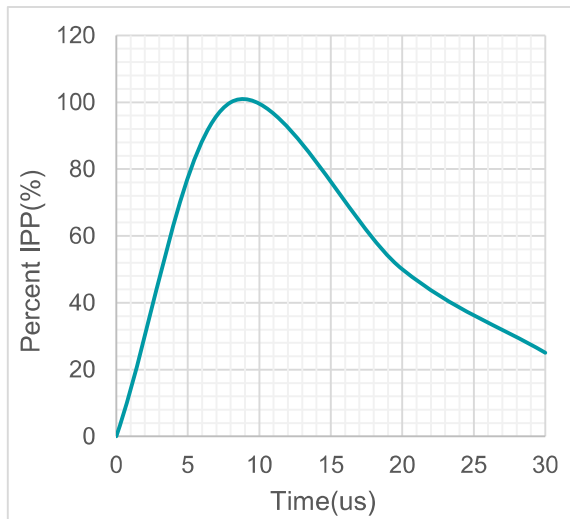


Fig.3 IEC61000-4-5 test waveform (tr=8/20us)

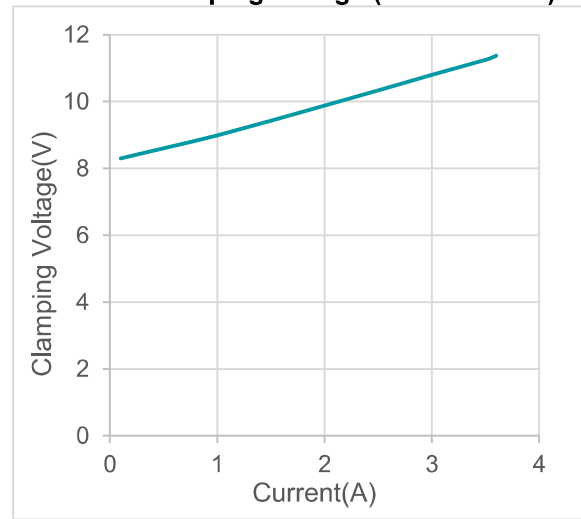


Fig. 4 Surge Clamping voltage (IEC61000-4-5)

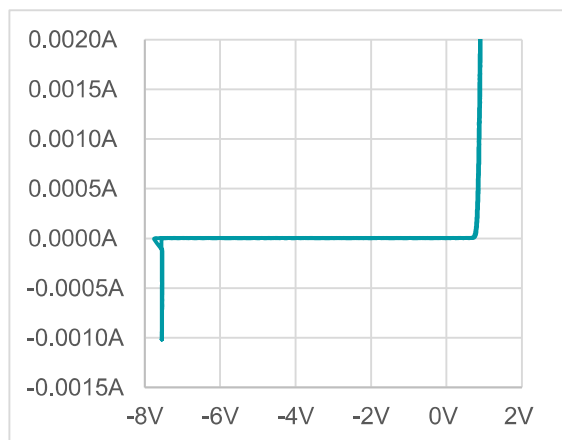


Fig.5 I-V Curve

Ordering information

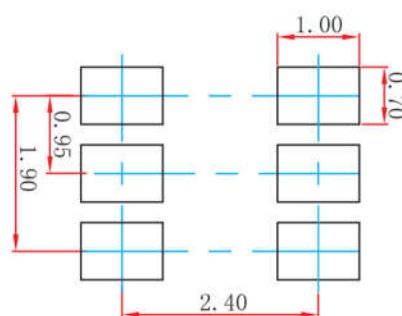
Package	Packing Description	Packing Quantity
SOT23-6L	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOT23-6L

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.05	1.25	41	49
A1	0	0.10	0	3.9
A2	1.05	1.15	41	45
b	0.30	0.50	11.8	19.7
c	0.10	0.20	3.9	7.9
D	2.82	3.02	111	119
E1	1.50	1.70	45	67
E	2.65	2.95	104	116
e	0.950(BSC)		37(BSC)	
e1	1.80	2.00	71	79
L	0.30	0.60	11.8	23.6
θ	0°	8°	0°	8°

The recommended mounting pad size



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