TECH PUBLIC
台舟电子

PESDUC5D5VB

1-Line Bi-directional TVS Diode

www.sot23.com.tw

Features

- Ultra low capacitance: 0.35pF typical
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:

– IEC 61000-4-2 (ESD) immunity test

Air discharge: ±20kV

Contact discharge: ±15kV

- – IEC61000-4-5 (Lightning) 3.5A (8/20μs)

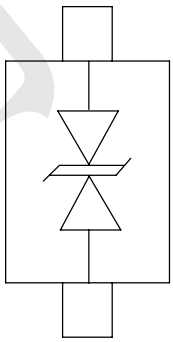
Mechanical Characteristics

- Package: SOD-523(0603)
- Lead Finish: NiPdAu
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Shipping Qty :3000/7Inch Tape & Reel

Applications

- Smart phones
- Display Ports
- MDDI Ports
- USB Ports
- Digital Video Interface (DVI)

Dimensions and Pin Configuration



Marking:L5W

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	80	W
Peak Pulse Current (8/20μs)	IPP	3.5	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	VESD	±20 ±15	kV
Operating Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5. 0	V
Breakdown Voltage	V_{BR}	I_T = 1mA	6.0	7.5	8.5	V
Reverse Leakage Current	I_R	V_{RWM} = 5. 0V			200	nA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20μs pulse)			12	V
Clamping Voltage	V_C	I_{PP} = 3.5A (8 x 20□s pulse)			20	V
Junction Capacitance	C_J	VR = 0V, f = 1MHz		0.35	0.4	pF

Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

Fig1. 8/20μs Pulse Waveform

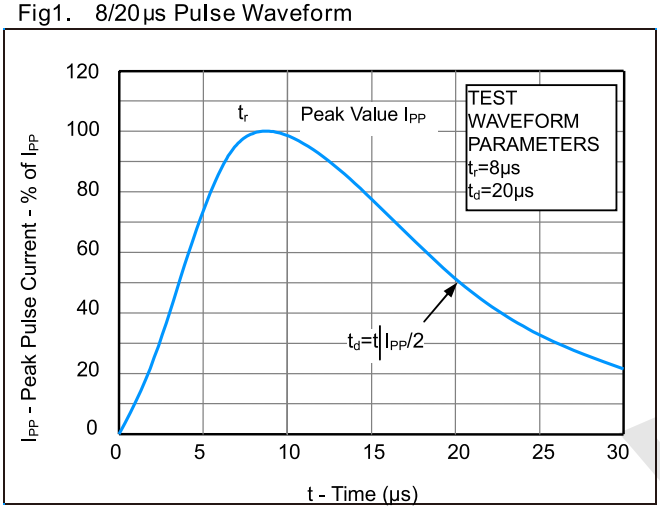


Fig2. ESD Pulse Waveform (acco rding to IEC 61000-4-2)

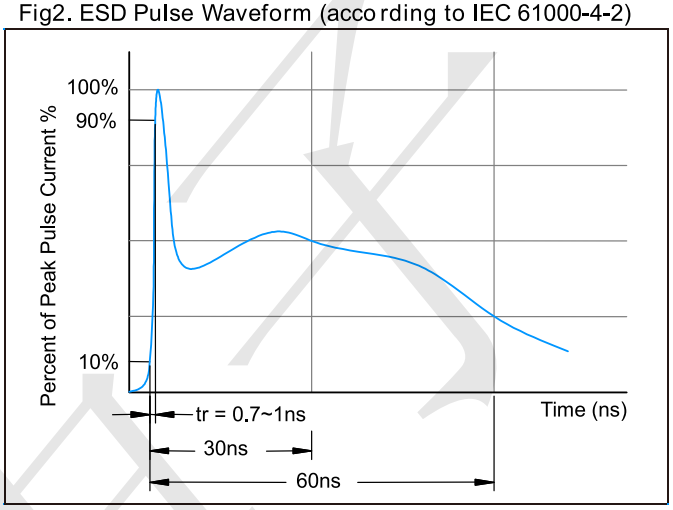
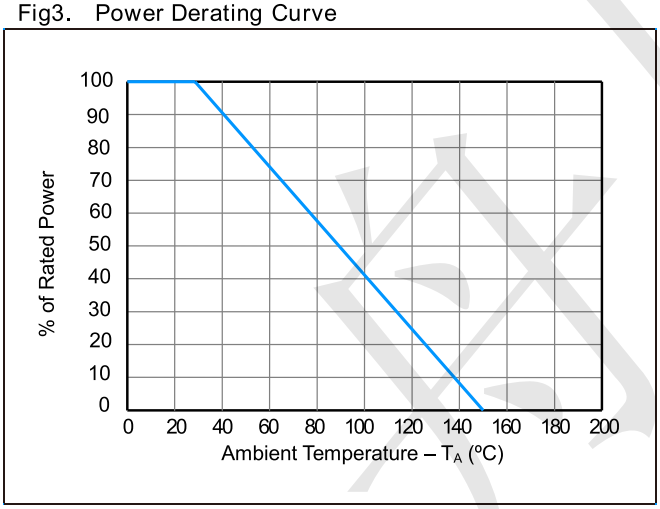
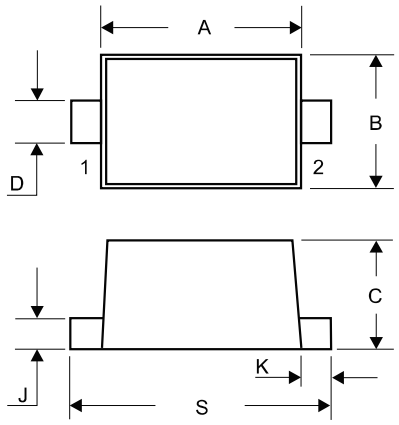


Fig3. Power Derating Curve



Outline Drawing - SOD-523 (0603)

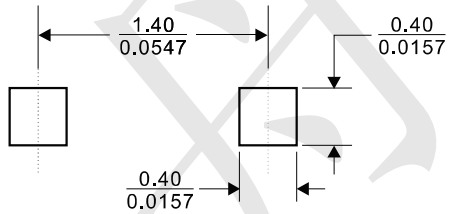
SOD-523



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	0.50	0.70	0.020	0.028
D	0.25	0.35	0.010	0.014
J	0.07	0.20	0.0028	0.0079
K	0.15	0.25	0.006	0.010
S	1.50	1.70	0.059	0.067

Land Pattern - SOD-523 (0603)

Recommended Mounting Pad Layout



Dimensions in (millimeters / inches)