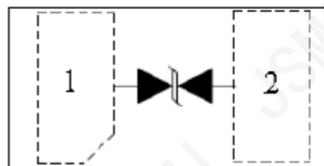


DESCRIPTION

PESD5V0H1BSFYL-JSM is a bidirectional TVS diode that utilizes leading monolithic silicon technology to provide fast response time and low ESD clamping voltage, making it an ideal solution for protecting voltage sensitive data and power lines. This device complies with the IEC 61000-4-2 (ESD) standard, supporting ** ± 20 kV air discharge** and ** ± 15 kV contact discharge**. It is housed in an ultra-compact, lead-free 0201 package (dimensions: 0.6x0.3x0.3 mm).

The PESD5V0H1BSFYL-JSM compact size and high ESD surge protection make it a superior choice for safeguarding portable applications such as mobile phones, digital cameras, audio players, and similar devices.



DFN0603

FEATURES

- ◆ Ultra small package: 0.6x0.3x0.3mm
- ◆ Ultra low capacitance: 0.35pF typica 1
- ◆ 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: ± 20 kV
- ◆ Contact discharge: ± 15 kV
- ◆ RoHS Compliant
- ◆ Lead Finish: NiPdAu

APPLICATIONS

- ◆ Smart phones
- ◆ Display Ports
- ◆ MDDI Ports
- ◆ USB Ports
- ◆ digital Video Interface (DVI)
- ◆ PCI Express and Serial SATA Ports

MACHANICAL DATA

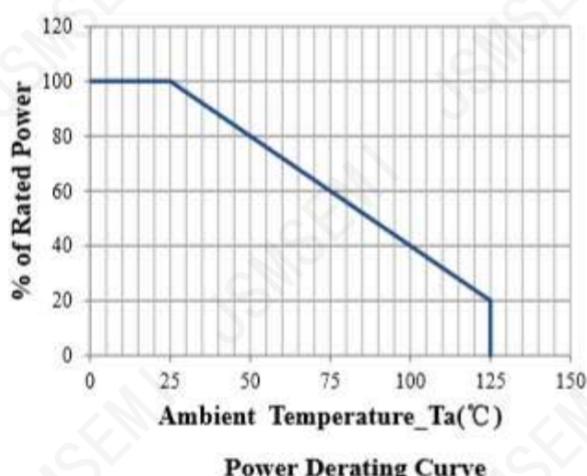
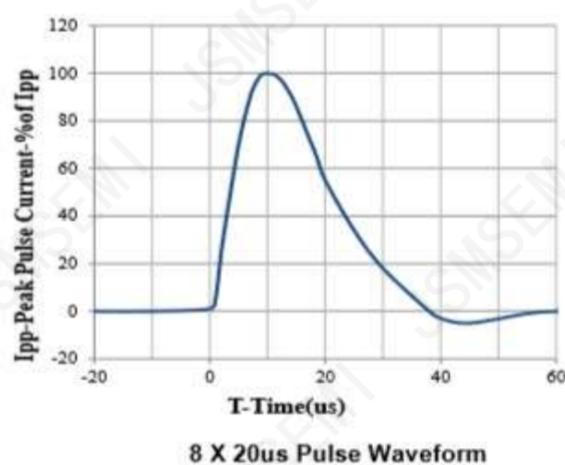
- ◆ Flammability Rating: UL 94V-0
- ◆ Packaging: Tape and Reel
- ◆ High temperature soldering guaranteed: 260°C/10s
- ◆ Reel size: 7 inch

ABSOLUTE MAXIMUM RATING

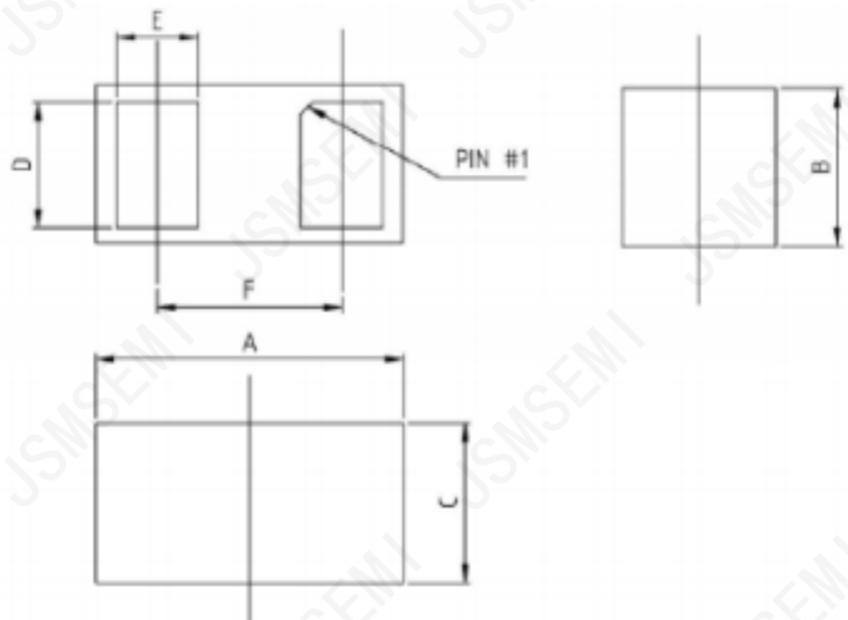
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 20 ± 15	kV
P_{PP}	Peak Pulse Power (8/20 μ s)	80	W
T_{OPT}	Operating Temperature	-55~125	°C
T_{STG}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	6.0			V
I_R	Reverse Leakage Current	$V_{RWM} = 5\text{V}$			0.1	nA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			12	V
C_J	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		0.35		pF

ELECTRICAL CHARACTERISTICS CURVE

Power Derating Curve

8 X 20us Pulse Waveform

DFN0603 PACKAGE OUTLINE DIMENSIONS



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	0.58	0.60	0.65
B	0.28	0.30	0.35
C	0.28	0.30	0.34
D	0.20	0.24	0.26
E	0.13	0.16	0.19
F	-	0.36	-

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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