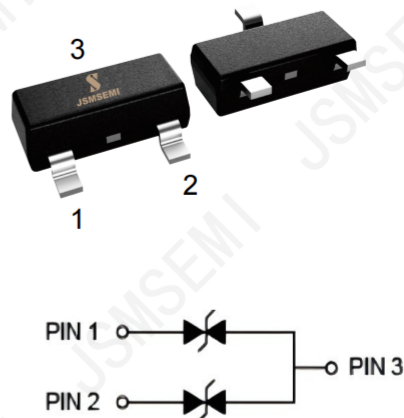


Description

The PESD5V0U2BT,215-JSM is a ESD diode designed to protect two L2BT bus lines. It features a high peak pulse power of 350W (8/20 μ s), high ESD protection level, and comes in a SOT-23 thin SMD package. The device is RoHS compliant and has a matte tin lead finish (Pb-Free), making it suitable for various applications that require ESD protection for high-speed data lines.



Features

- 350W (8/20 μ s) Peak Pulse
- Power High ESD Protection Level
- SOT-23 Thin SMD Package
- RoHS compliant
- Matte Tin Lead finish (Pb-Free)
- Protect Two L2BT Bus Lines

Applications

- DeviceNet
- Low and High Speed L2BT
- Smart Distribution Systems (SDS)
- Controlled Area Network – ESD 1.1 / ESD FD

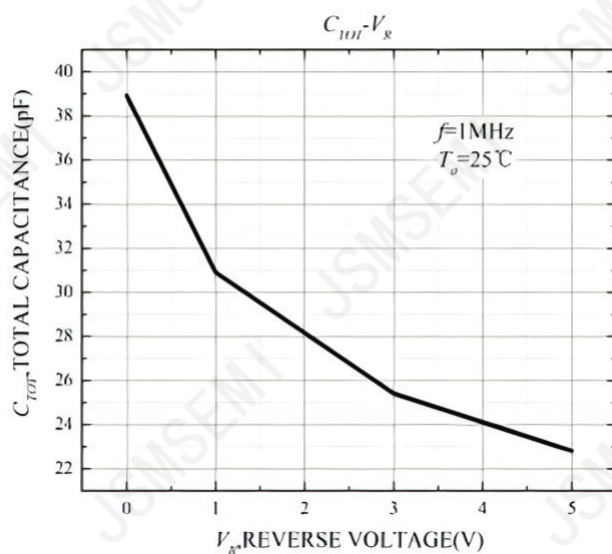
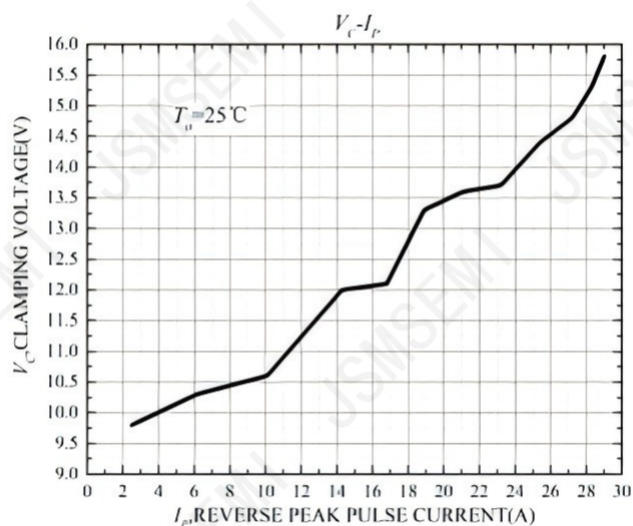
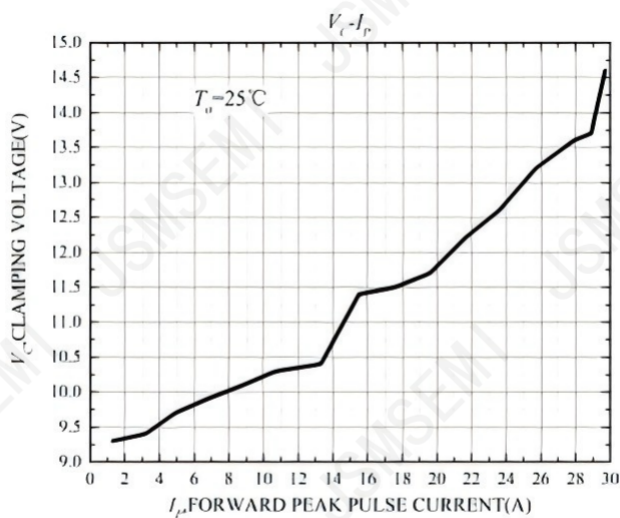
Maximum Ratings(TA=25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	350	W
IPP	Peak Pulse Current	20	A
VESD(Contact)	Contact ESD Voltage per IEC61000-4-2	20	kV
VESD(Air)	Air ESD Voltage per IEC61000-4-2	20	kV
TJ	Junction Temperature	-65 to +150	°C
TSTG	Storage Temperature	-65 to +150	°C

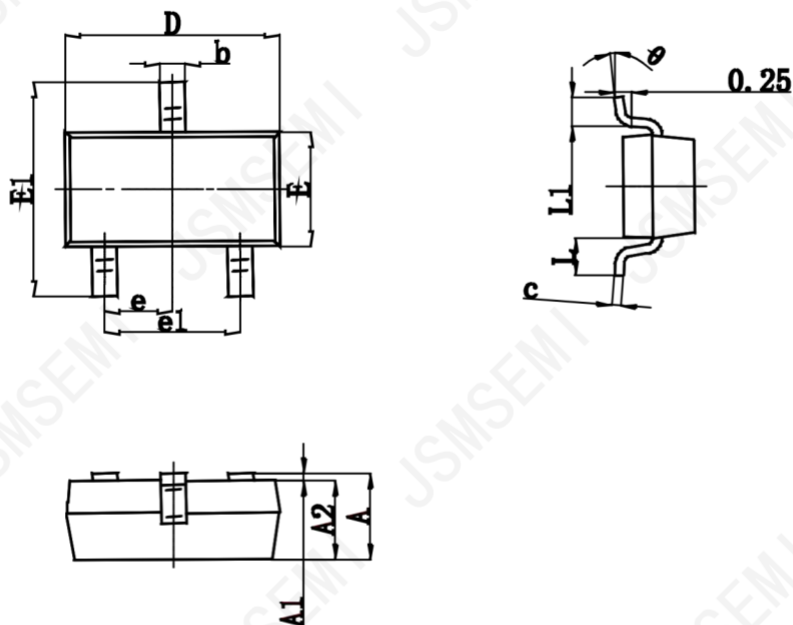
Electrical Characteristics(TA=25°C)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT=1mA	5.8		8.3	V
IR	Reverse Leakage Current	VRWM=5V		<1	100	nA
VC	Clamping Voltage	IPP=2A(8/20 μ s)			9	V
VC	Clamping Voltage	IPP=20A(8/20 μ s)			20	V
CJ	Capacitance	VR=0V, f=1MHz		39		pF

Typical Electrical Characteristics Curve

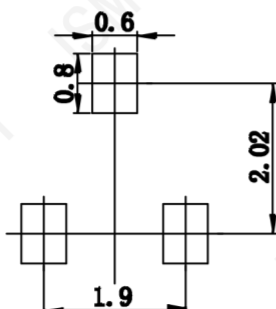


Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Revision History

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

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