



DESCRIPTION

The PESD3V3L2BT is available in SOT-23 package.

Applications

- Dataline
- Automatic Teller Machines
- Net works
- Power line

Mechanical Data

- Case: SOT-23
- Molding compound flammability rating:
UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

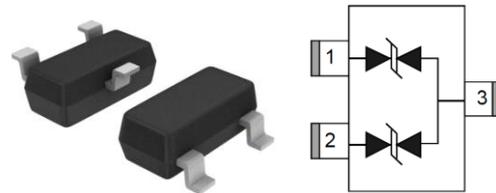
ORDERING INFORMATION

Package Type	Part Number
SOT-23	PESD3V3L2BT
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURE

- 400 Watts peak pulse power (tp =8/20μs)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kVair
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 24A (8/20μs)

PIN DESCRIPTION



PIN#	DESCRIPTION
1	Cathode 1
2	Cathode 2
3	Double Cathode



ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted.

P _{PP} , Peak Pulse Power (t _p =8/20μs)	400 Watts
I _{PP} , Peak Pulse Current (t _p =8/20μs)	24A
V _{ESD} , ESD per IEC 61000-4-2 (Air)	30kV
V _{ESD} , ESD per IEC 61000-4-2 (Contact)	30kV
T _L , Lead Soldering Temperature	260°C (10seconds)
T _J , Junction Temperature	-55°C~+125°C
T _{STG} , Storage Temperature	-55°C~+125°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

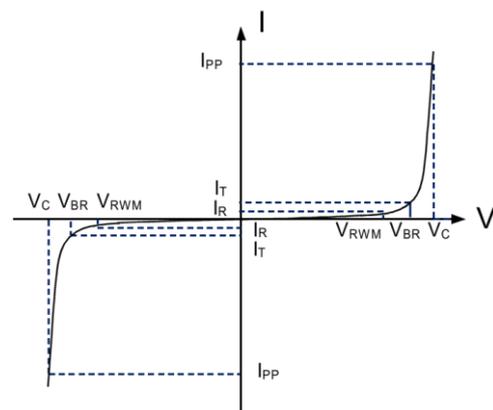
T_A = 25°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	3	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	4	6.5	8	V
Reverse Leakage Current	I _R	V _{RWM} =3.0V, T=25°C	-	0.1	0.5	μA
Peak Pulse Current	I _{PP}	t _p =8/20μs	-	-	24	A
Clamping Voltage	V _C	I _{PP} =24A, t _p =8/20μs	-	-	18	V
Junction Capacitance	C _j	V _R = 0V, f = 1MHz (Pin1, Pin2 to Pin 3)	-	100	110	pF

ELECTRICAL PARAMETERS

T_A = 25°C, unless otherwise noted.

Parameter	Symbol
Working Peak Reverse Voltage	V _{RWM}
Breakdown Voltage @ I _T	V _{BR}
Maximum Reverse Leakage Current @ V _{RWM}	I _R
Maximum Reverse Peak Pulse Current	I _{PP}
Clamping Voltage @ I _{PP} V _{RWM}	V _C
Test Current	I _T





TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Peak Pulse Power vs. Pulse Time

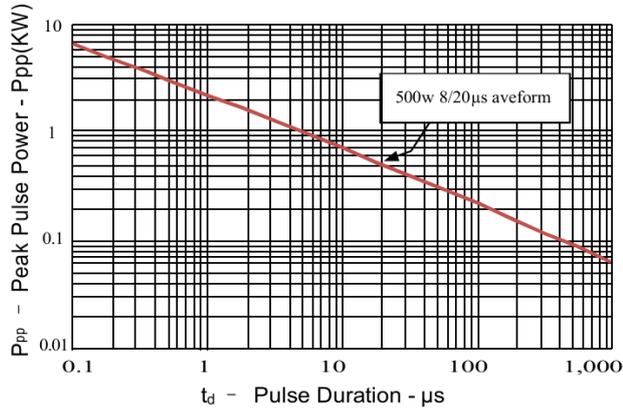


Fig 2. Power Derating Curve

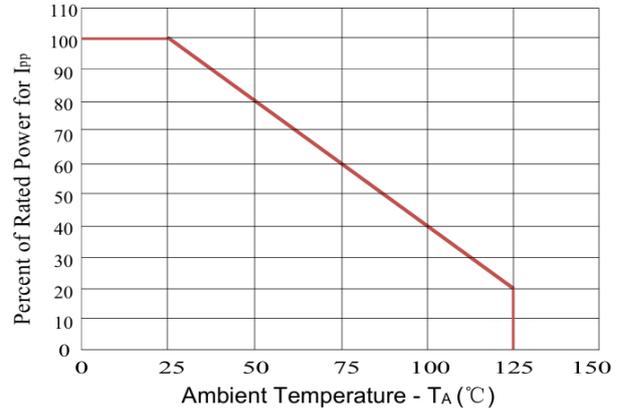


Fig 3. D Pulse Waveform

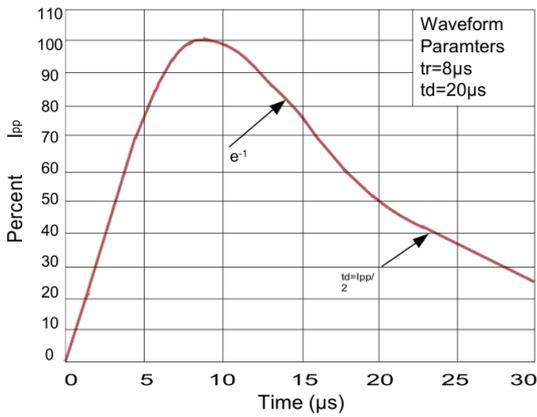
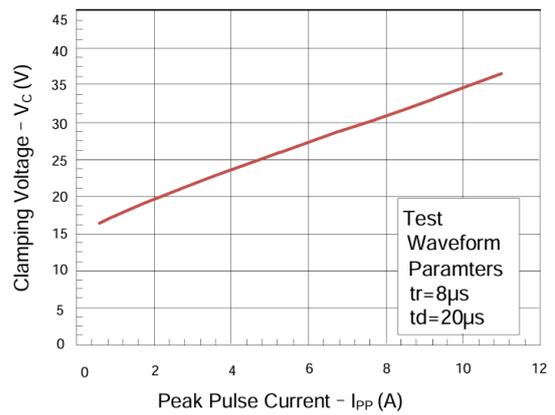


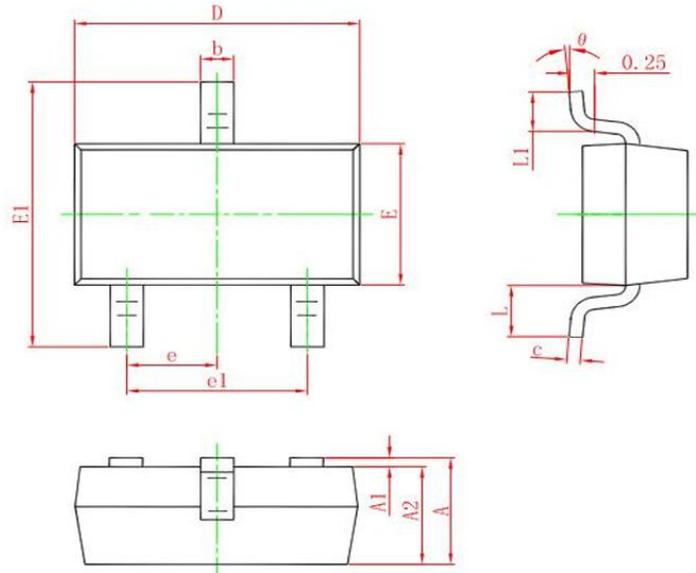
Fig 4. Clamping Voltage vs. I_{pp}





PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



Symbol	Millimeters (mm)	
	Min.	Max.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950 TYP.	
e1	1.800	2.000
L	0.550 REF.	
L1	0.300	0.500
θ	0°	8°



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