

BAW56T / BAV70T / BAV99T

Fast Switching Diode

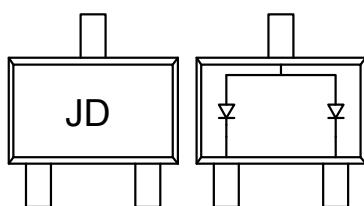
Features

- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion.
- High Conductance

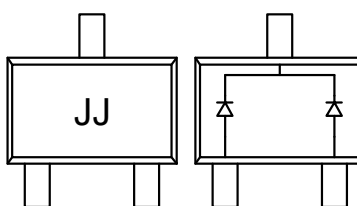
Package



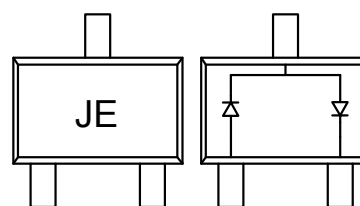
Marking & Internal Wiring



BAW56T



BAV70T



BAV99T

Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAW56T	SOT-523	JD	3K	Tape and reel
BAV70T	SOT-523	JJ	3K	Tape and reel
BAV99T	SOT-523	JE	3K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V _R	Reverse Voltage	85	V
V _{RMS}	RMS Reverse Voltage	75	V
I _F	Forward Current	75	mA
I _{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.0	A
P _d	Power Dissipation	150	mW
R _{θJA}	Thermal Resistance Junction to Ambient	833	°C/W
T _J	Operation Junction Temperature Range	-40 to 150	°C
T _{STG}	Storage Temperature Range	-55 to 150	°C



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Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
V _{BR}	Reverse Breakdown Voltage	I _R =1uA	85	–	V
I _R	Reverse Leakage Current	V _R =75V	–	2	uA
		V _R =25V	–	30	nA
V _F	Forward Voltage	I _F =1mA	–	0.715	V
		I _F =10mA	–	0.855	
		I _F =50mA	–	1	
		I _F =150mA	–	1.25	
C _T	Diode capacitance	V _R =0V, f=1MHz	–	1.5	PF
T _{RR}	Reverse Recovery Time	I _F =I _R =10mA, I _{rr} =0.1X I _R , R _L =100Ω	–	4	nS



Typical Performance Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Characteristics

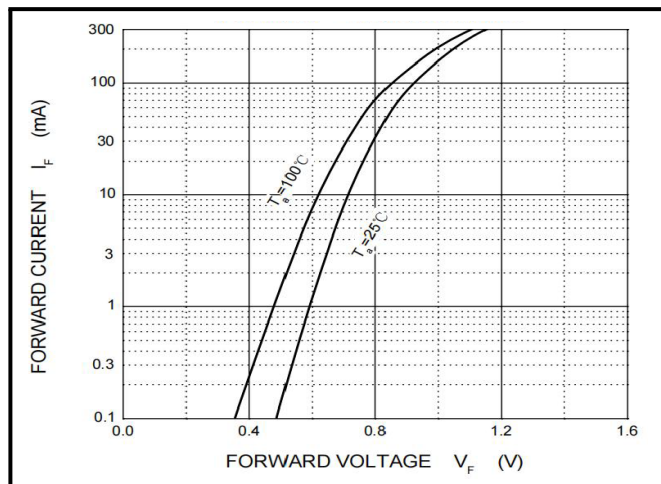


Figure 2: Reverse Characteristics

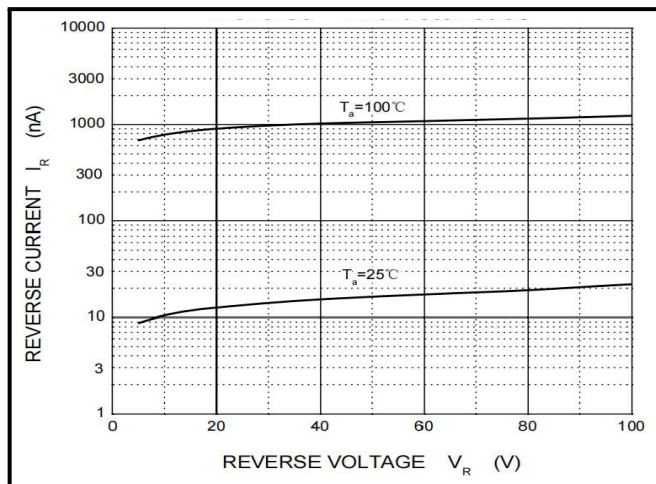


Figure 3: Capacitance Characteristics

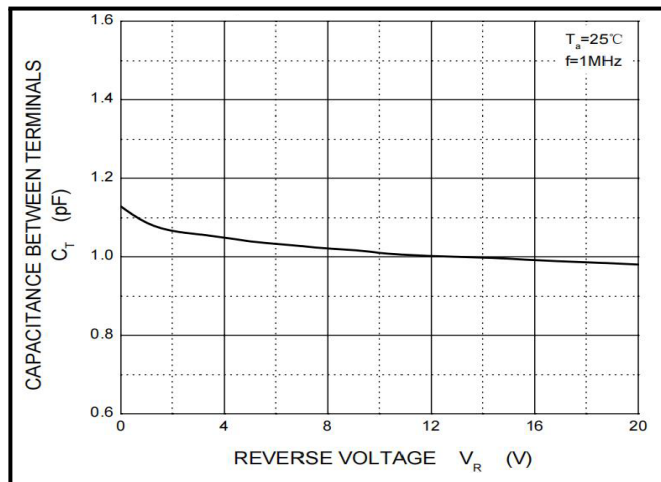
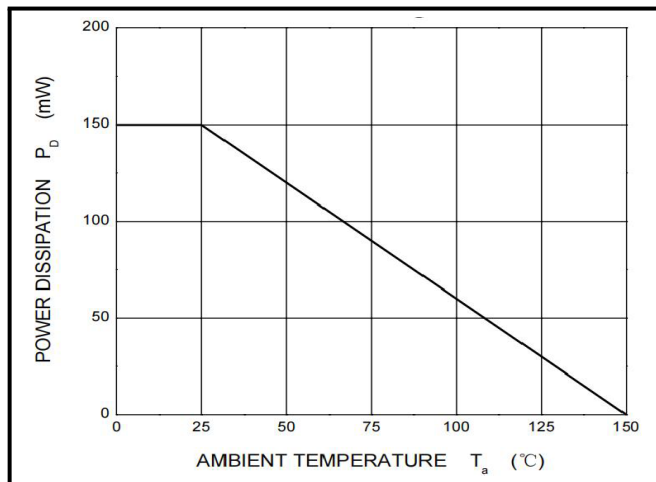


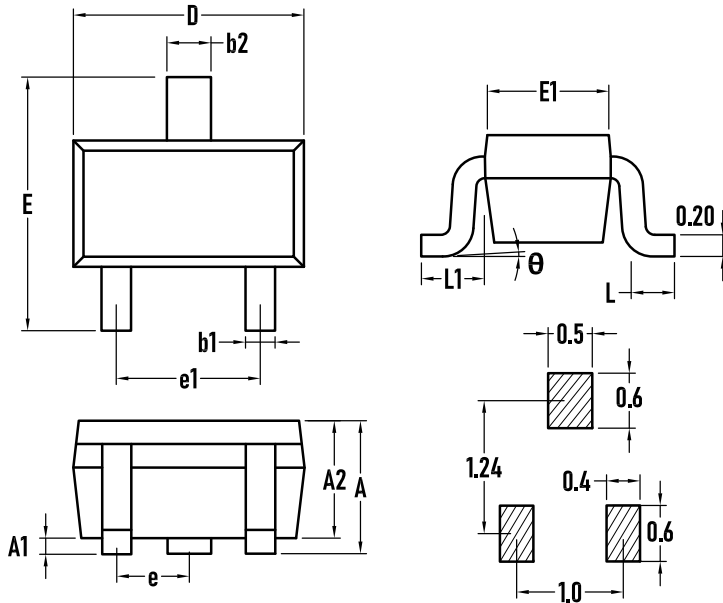
Figure 4: Power Derating Curve



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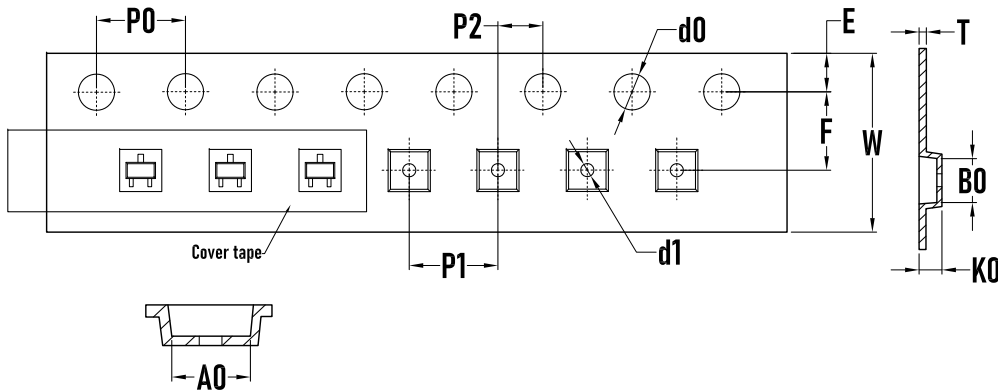
Schottky Barrier Diode

Outline Drawing – SOT-523



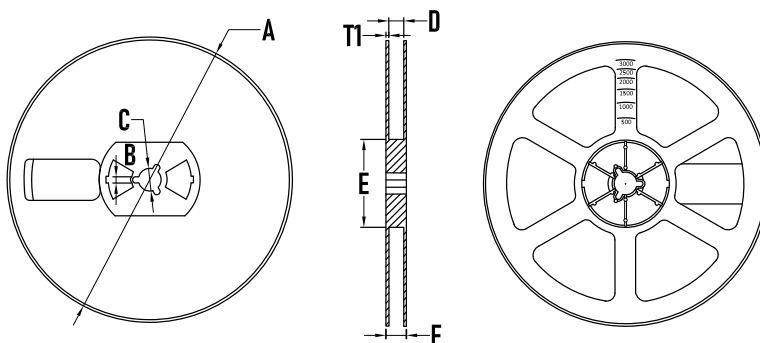
SYMBOL	MILLIMETER		
	MIN	TYP	MAX
A	0.70	0.80	0.90
A1	0.00	0.05	0.10
A2	0.70	0.75	0.80
b1	0.15	0.22	0.29
b2	0.25	0.32	0.39
D	1.50	1.60	1.70
E	1.45	1.60	1.75
E1	0.70	0.80	0.90
e	0.50(TPY.)		
e1	0.90	1.00	1.10
L	0.26	0.36	0.46
L1	0.40(REF)		
θ	0°	4°	8°

Packaging Tape - SOT-523



SYMBOL	MILLIMETER
A0	1.78±0.05
B0	1.78±0.05
d0	1.50±0.10
d1	0.50±0.10
E	1.75±0.10
F	3.50±0.05
K0	0.69±0.05
P0	4.00±0.10
P1	4.00±0.10
P2	2.00±0.10
W	8.00±0.20
T	0.20±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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