BORN SEMICONDUCTOR

BAW56W / BAV70W / BAV99W

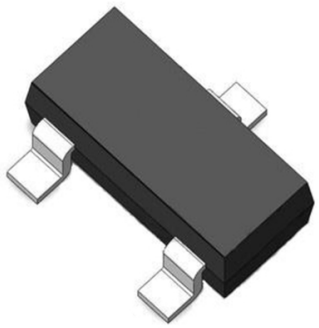
Fast Switching Diode

Features

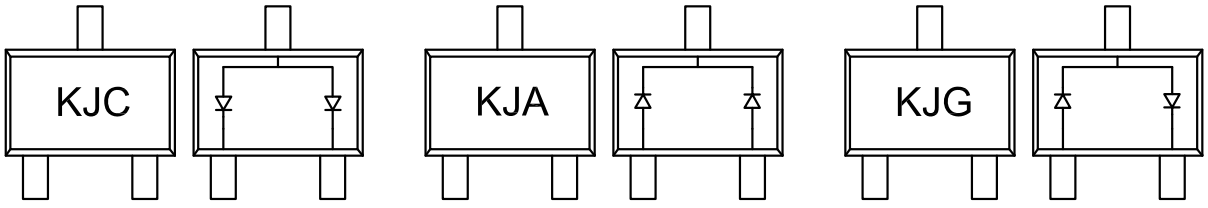
- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion.
- High Conductance

Package

SOT-323



Marking &Internal Wiring



BAW56W BAV70W BAV99W

Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAW56W	SOT-323	KJC	3K	Tape and reel
BAV70W	SOT-323	KJA	3K	Tape and reel
BAV99W	SOT-323	KJG	3K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V_R	Peak Repetitive Peak Reverse Voltage	75	V
V_{RM}	Peak Repetitive Reverse Voltage	85	V
I_O	Average Rectified Output Current	200	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.0	A
P_d	Power Dissipation	225	mV
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	550	°C/W
T_J	Operation Junction Temperature Range	-40 to 125	°C
T_{STG}	Storage Temperature Range	-55 to 150	°C

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A

BAW56W / BAV70W / BAV99W

Fast Switching Diode

Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
V_{BR}	Reverse Breakdown Voltage	I_R=100uA	75	–	V
I_R	Reverse Leakage Current	V_R=75V	–	2.5	uA
		V_R=20V	–	25	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_D	Diode capacitance	V_R=0V,f=1MHz	–	1.5	PF
T_{RR}	Reverse Recovery Time	I_F=I_R=10mA,I_{rr}=0.1XI_R, R_L=100Ω	–	6	nS

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

BAW56W / BAV70W / BAV99W

Fast Switching Diode

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Forward Characteristics

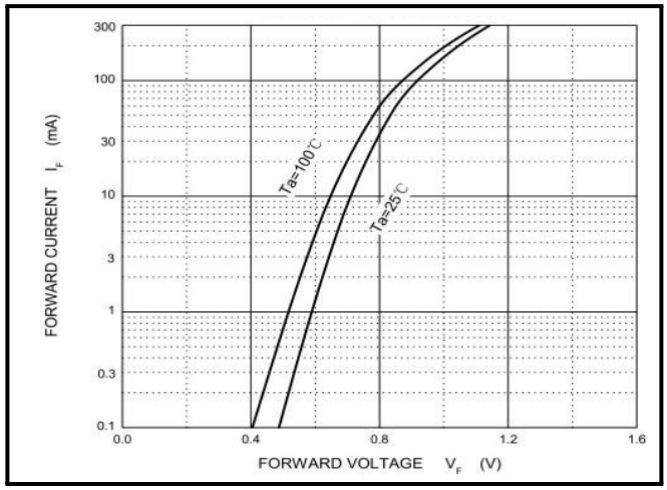


Figure 2: Reverse Characteristics

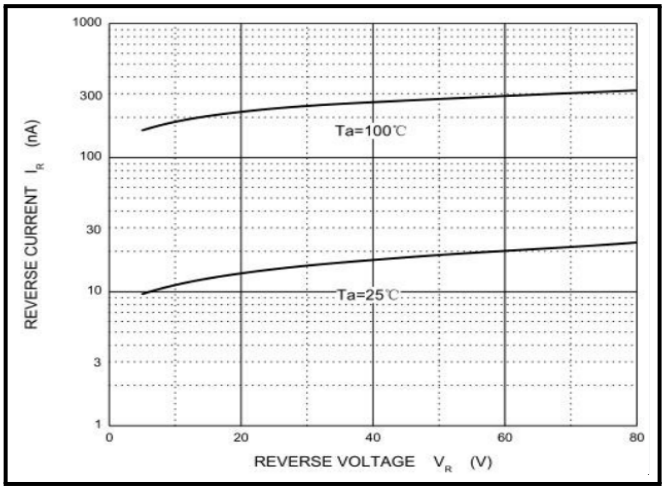


Figure 3: Capacitance Characteristics

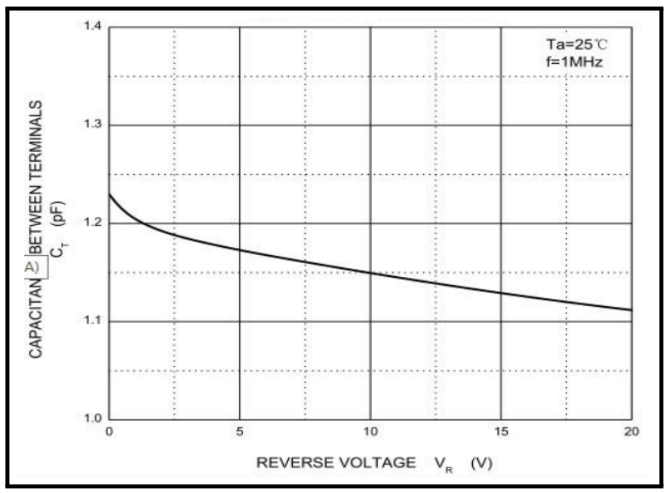
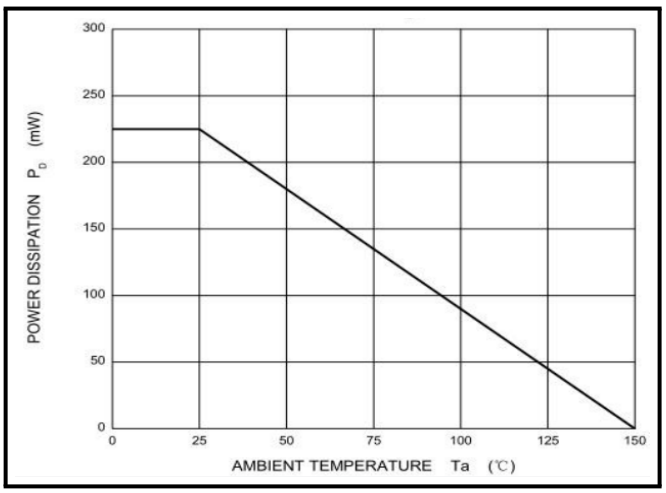


Figure 4: Power Derating Curve



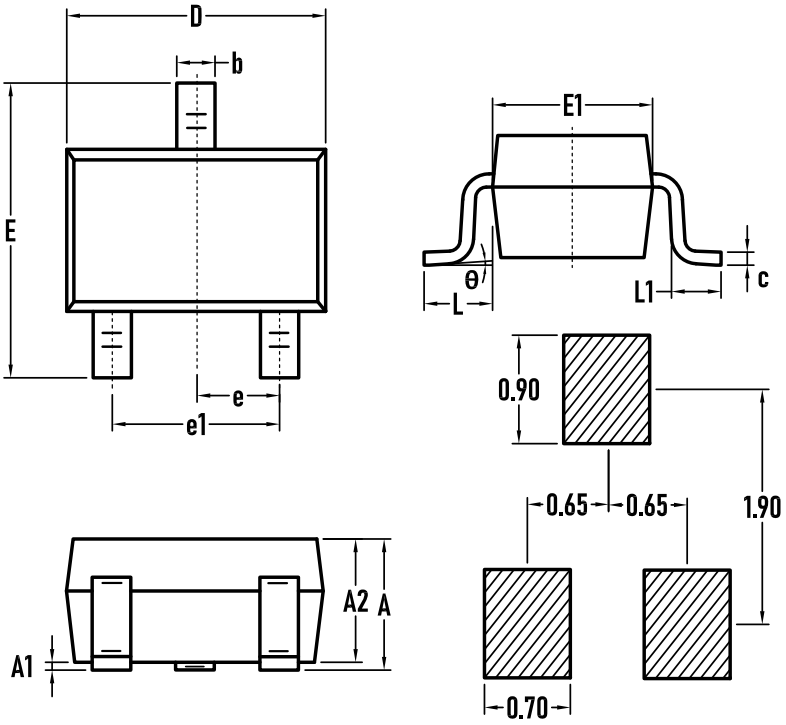
BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

BAW56W / BAV70W / BAV99W

Fast Switching Diode

Outline Drawing - SOT-323



SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.20	0.30	0.40
c	0.08	0.12	0.15
D	2.00	2.10	2.20
E	2.15	2.30	2.45
E1	1.15	1.25	1.35
e		0.650Typ.	
e1	1.20	1.30	1.40
L1	0.26	0.36	0.46
L		0.525REF	
θ	0°	4°	8°

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A