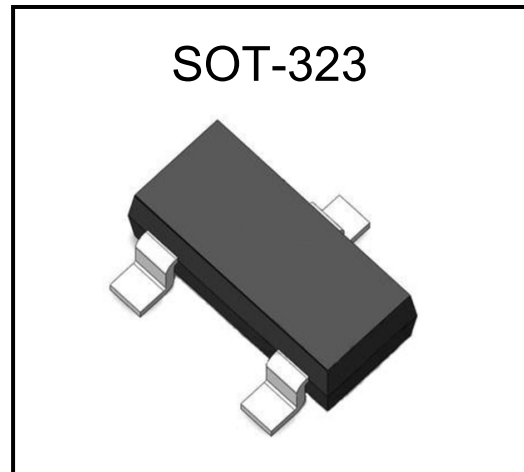


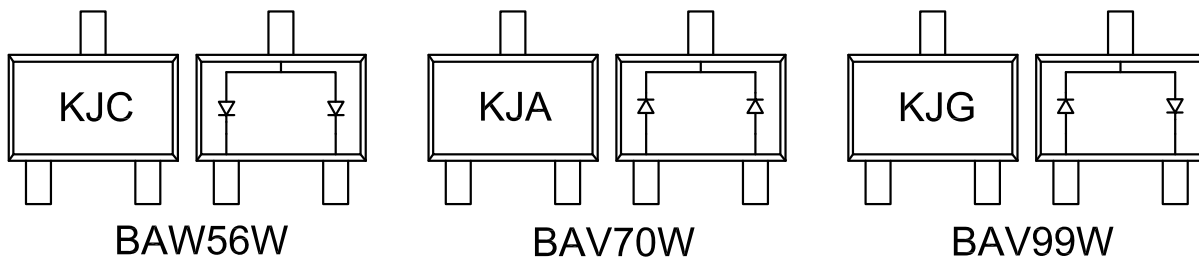
### Features

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

### Package



### Marking & Internal Wiring



### Ordering information

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

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Peak Repetitive Peak Reverse Voltage	70	V
V <sub>RWM</sub>	Working Peak Reverse Voltage	71	V
I <sub>O</sub>	Average Rectified Output Current	200	mA
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.0	A
P <sub>d</sub>	Power Dissipation	225	mW
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient	550	°C/W
T <sub>J</sub>	Operation Junction Temperature Range	-40 to 125	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to 150	°C



# BAW56W / BAV70W / BAV99W

Fast Switching Diode

Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
$V_{BR}$	Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	70	–	V
$I_R$	Reverse Leakage Current	$V_R=70\text{V}$	–	2.5	$\mu\text{A}$
		$V_R=20\text{V}$	–	25	nA
$V_F$	Forward Voltage	$I_F=1\text{mA}$	–	0.715	V
		$I_F=10\text{mA}$	–	0.855	
		$I_F=50\text{mA}$	–	1	
		$I_F=150\text{mA}$	–	1.25	
$C_D$	Diode capacitance	$V_R=0\text{V}, f=1\text{MHz}$	–	1.5	PF
$T_{RR}$	Reverse Recovery Time	$I_F=I_R=10\text{mA}, I_{rr}=0.1I_R,$ $R_L=100\Omega$	–	6	nS





**BAW56W / BAV70W / BAV99W**

Fast Switching Diode

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

Figure 1: Forward Characteristics

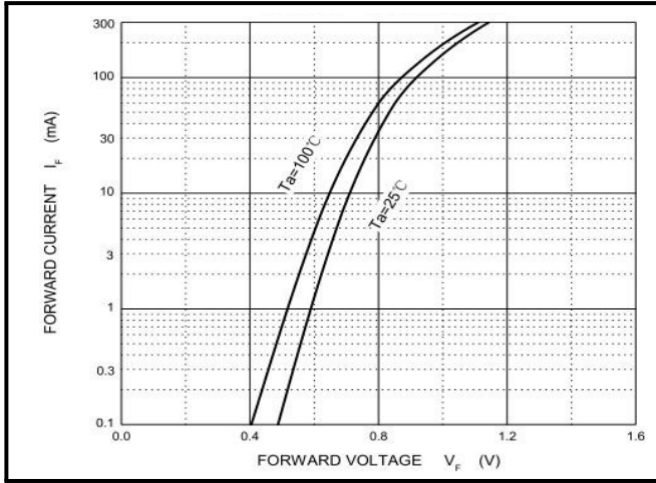


Figure 2: Reverse Characteristics

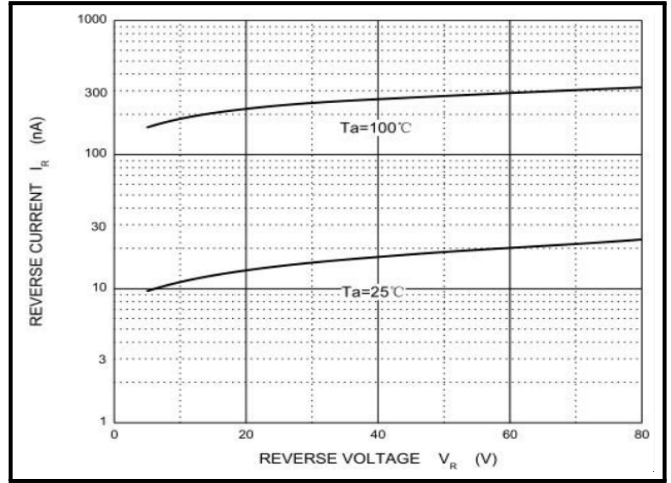


Figure 3: Capacitance Characteristics

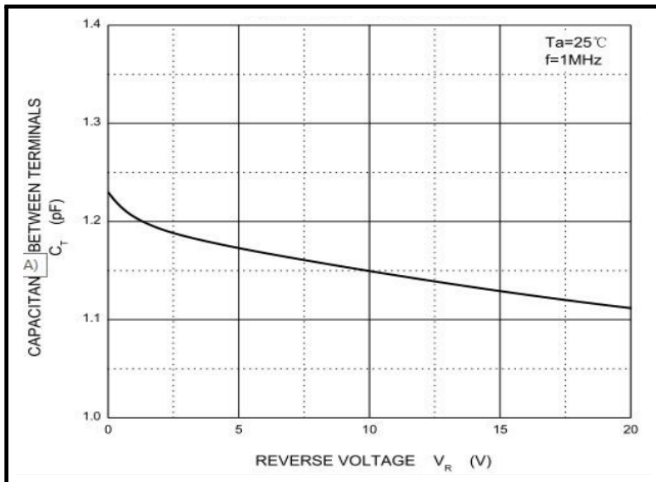
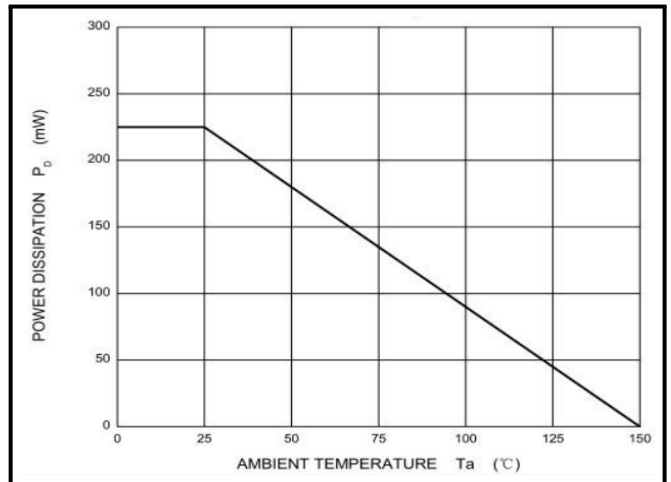
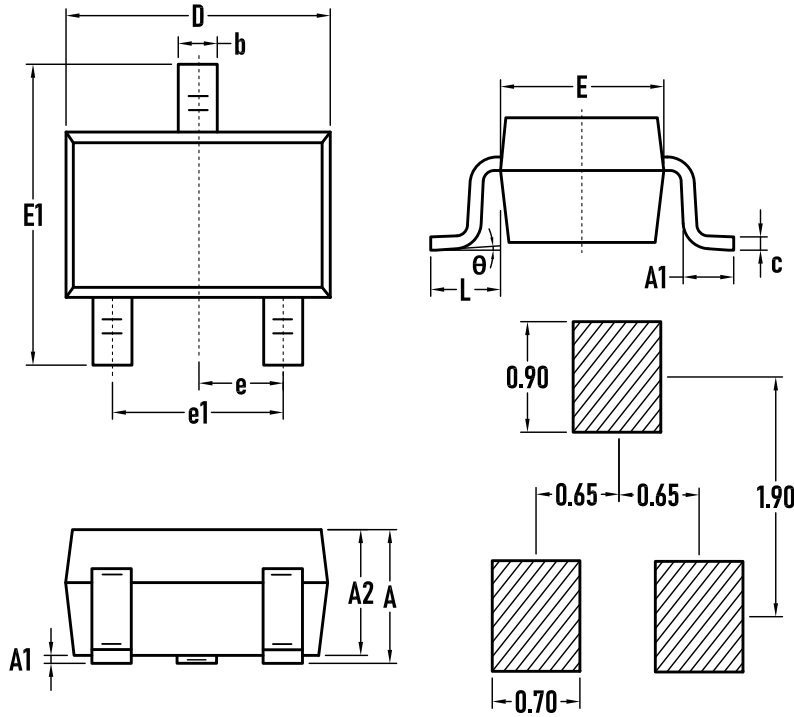


Figure 4: Power Derating Curve



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
L	0.26	0.36	0.46
θ	0	4°	8°



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