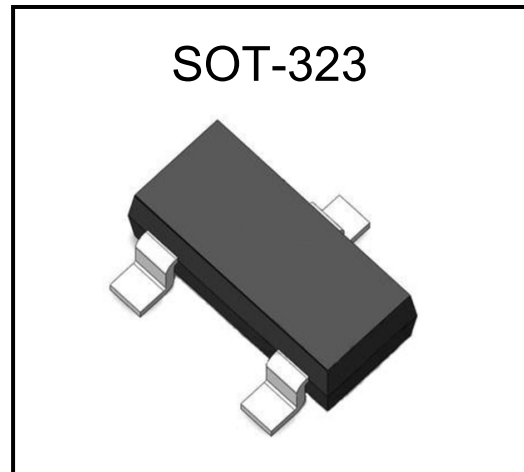


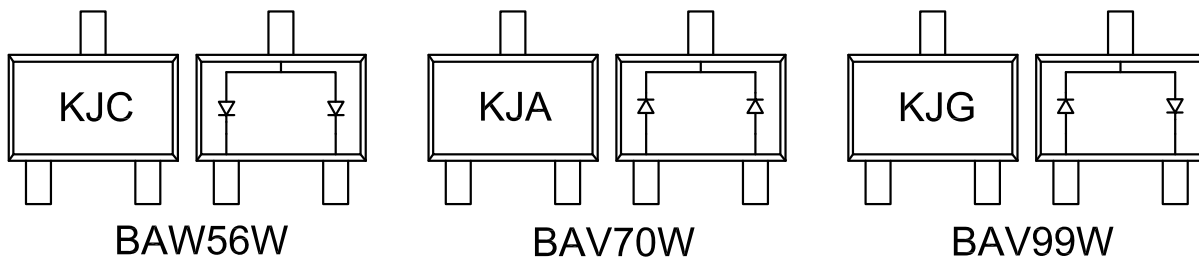
### Features

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

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak Repetitive Peak Reverse Voltage	70	V
$V_{RWM}$	Working Peak Reverse Voltage	71	V
$I_O$	Average Rectified Output Current	200	mA
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	2.0	A
$P_d$	Power Dissipation	225	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	550	$^{\circ}\text{C/W}$
$T_J$	Operation Junction Temperature Range	-40 to 125	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to 150	$^{\circ}\text{C}$



# BAW56W / BAV70W / BAV99W

Fast Switching Diode

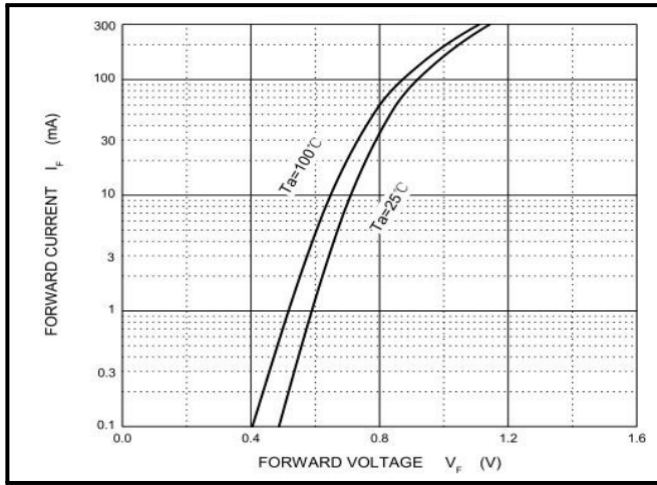
Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
V <sub>BR</sub>	Reverse Breakdown Voltage	I <sub>R</sub> =100uA	70	–	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> =70V	–	2.5	uA
		V <sub>R</sub> =20V	–	25	nA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =1mA	–	0.715	V
		I <sub>F</sub> =10mA	–	0.855	
		I <sub>F</sub> =50mA	–	1	
		I <sub>F</sub> =150mA	–	1.25	
C <sub>D</sub>	Diode capacitance	V <sub>R</sub> =0V,f=1MHz	–	1.5	PF
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> =I <sub>R</sub> =10mA,I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω	–	6	nS

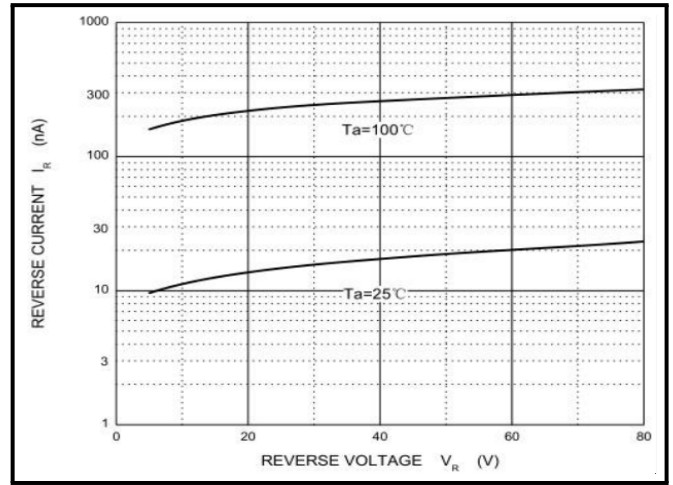


Typical Performance Characteristics ( $T_J = 25^\circ\text{C}$ , unless otherwise noted)

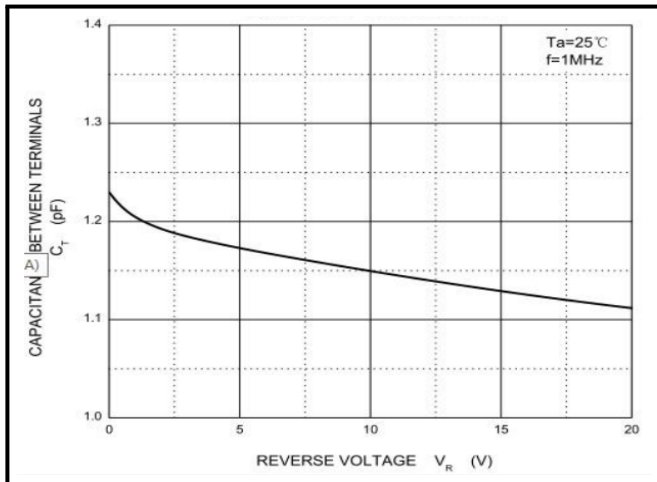
**Figure 1: Forward Characteristics**



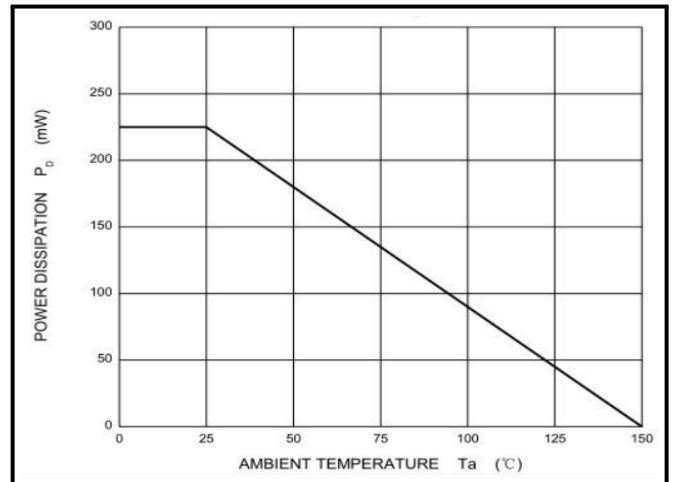
**Figure 2: Reverse Characteristics**



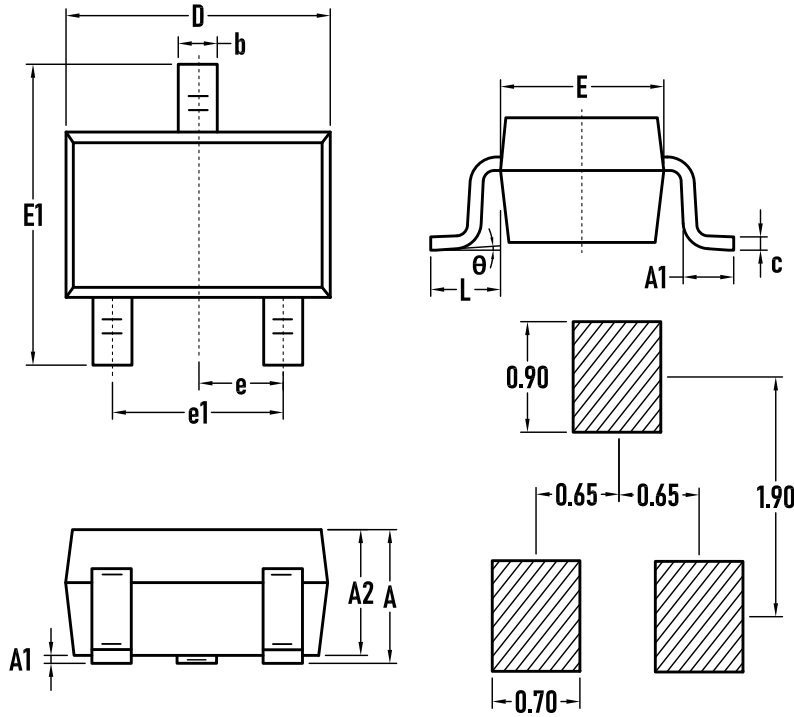
**Figure 3: Capacitance Characteristics**



**Figure 4: Power Derating Curve**



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
$\theta$	0	4°	8°

