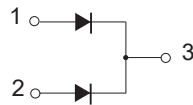
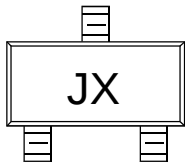
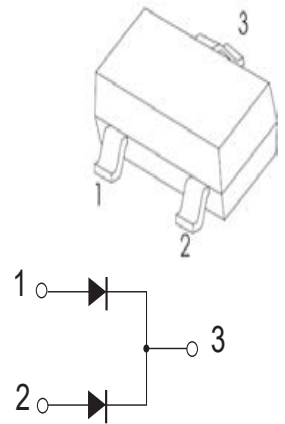


SOT-23 Plastic-Encapsulate Diodes**BAV170****Switching Diodes****FEATURES**

- Fast Switching Speed
- Low Leakage Current
- Low-leakage Current Applications in Surface Mounted Circuits

MARKING**Equivalent Circuit****SOT-23****MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

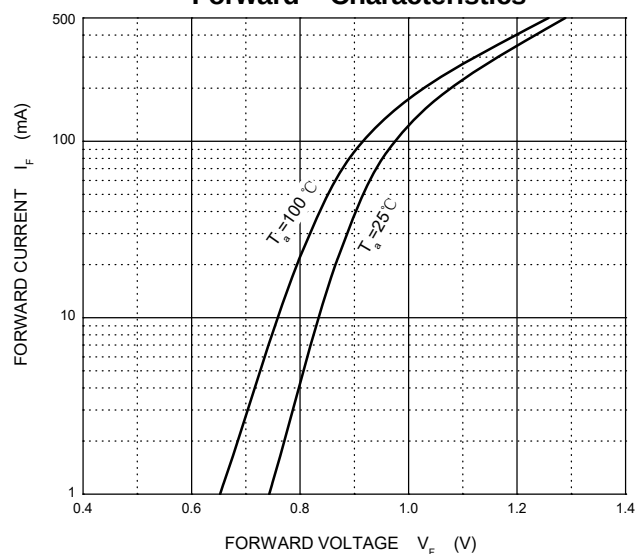
Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	85	V
V_R	DC Blocking Voltage	75	V
I_F	Forward Current(single diode)	215	mA
	Forward Current(double diode)	125	
I_{FRM}	Repetitive Peak Forward Current	500	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@ $t = 8.3\text{ms}$	1.0	A
P_D	Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

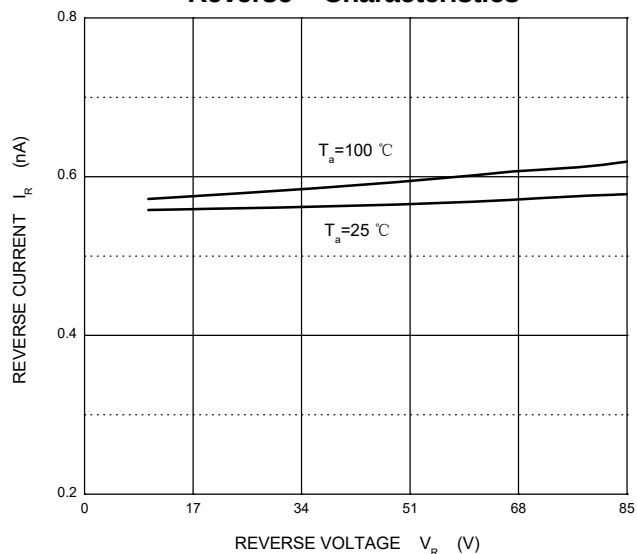
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	75			V
Reverse current	I_R	$V_R=75\text{V}$			5	nA
Forward voltage	V_F	$I_F=1\text{mA}$			0.9	V
		$I_F=10\text{mA}$			1	
		$I_F=50\text{mA}$			1.1	
		$I_F=150\text{mA}$			1.25	
Total capacitance	C_{tot}	$V_R=0, f=1\text{MHz}$		2		pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$			3	μs

Typical Characteristics

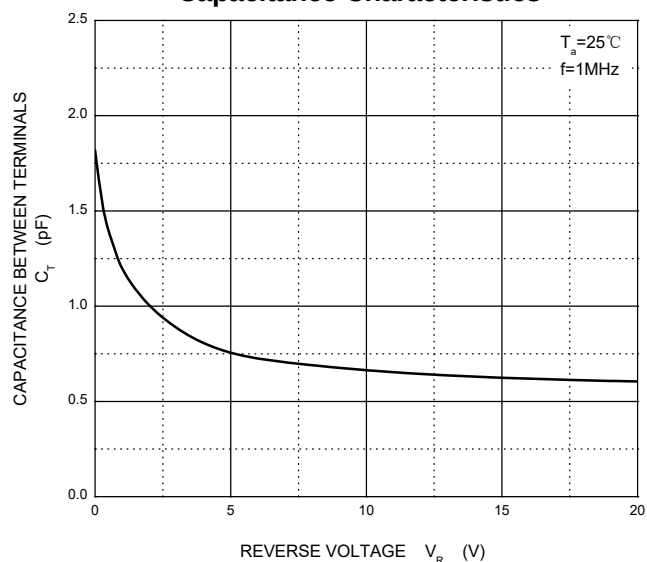
Forward Characteristics



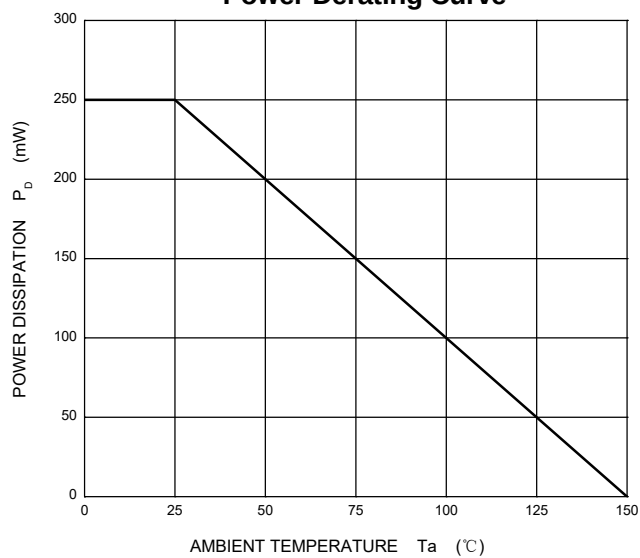
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout (SOT-23)



- Note:
- 1.Controlling dimension:in millimeters.
 - 2.General tolerance:± 0.05mm.
 - 3.The pad layout is for reference purposes only.