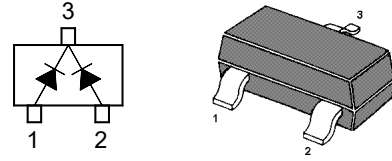


# BAV170

## Silicon Epitaxial Planar Switching Diode

### Feature

- Low leakage switching double diode
- Very low leakage current
- Medium speed switching times
- Series pair configuration



1. Anode 2. Andoe 3. Cathode  
SOT-23 Plastic Package

### Applications

- Low leakage current applications

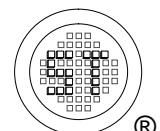
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	85	V
Continuous Reverse Voltage	$V_R$	85	V
Continuous Forward Current	$I_{F(AV)}$	215 125	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	4 1 0.5	A
Power Dissipation	$P_D$	250	mW
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	$^\circ\text{C}$

### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance, Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

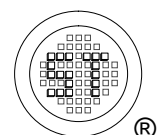


# BAV170

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## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	85	-	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - -	- - - -	0.9 1 1.1 1.25	V
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$	$I_R$	- -	- -	5 80	nA
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_{\text{tot}}$	-	2	-	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{tr} = 0.1 \times I_R, R_L = 100 \Omega$	$t_{rr}$	-	-	3	$\mu\text{s}$



## Electrical Characteristic Curve

Fig 1. Power Derating Curve

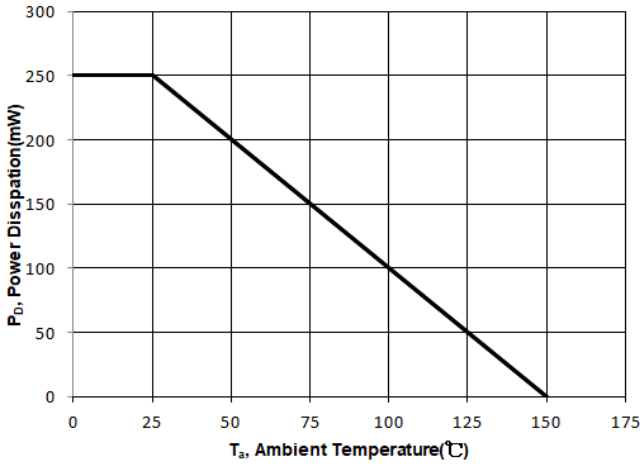


Fig 2. Capacitance Characteristics Curve

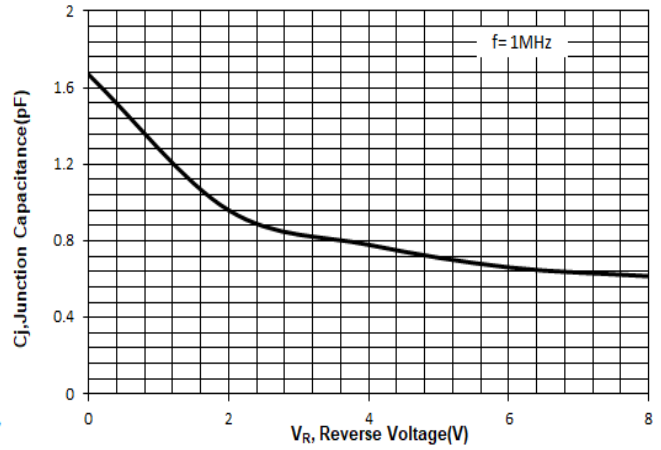


Fig 3. Reverse Characteristics Curve

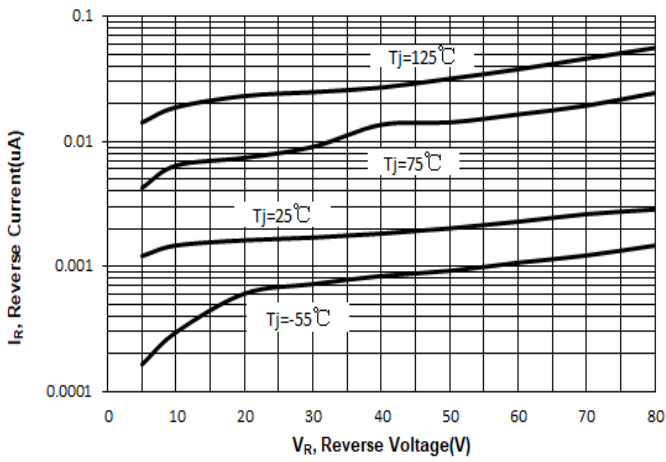
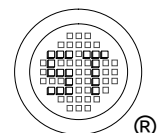
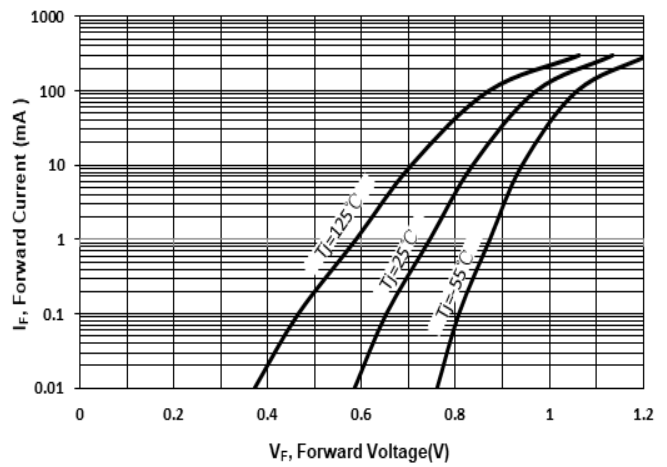


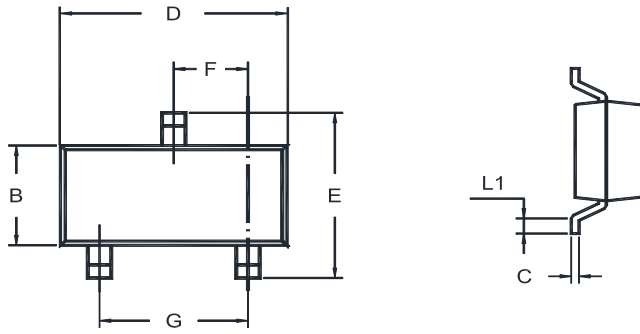
Fig 4. Forward Characteristics Curve



# BAV170

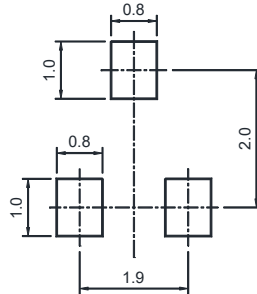
## Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

## Recommended Soldering Footprint

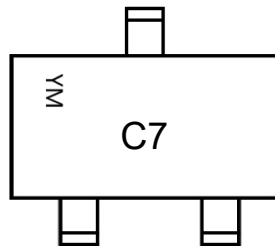


## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" C7 " = Part No.  
 "YM" = Date Code Marking  
 "Y" = Year  
 "M" = Month  
 Font type: Arial



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