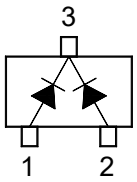
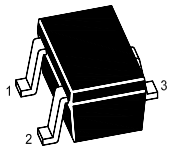
BAV170W

Silicon Epitaxial Planar Switching Diode

Features

- Very low leakage current
- Low capacitance





SOT-323 Plastic Package

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	85	V
Continuous Forward Current	I_F	200	mA
Non-repetitive Peak Forward Surge Current (t = 1 μs)	I_{FSM}	4	A
Power Dissipation	P_{tot}	200	mW
Operating Junction and Storage Temperature Range	T_j,T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1]	$R_{\theta JA}$	625	℃/W

[1] Device mounted on FR-4 PCB with minimum recommended pad layout.

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	85	-	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 - - - -	 0.9 1 1.1 1.25	V
Reverse Current at V_R = 75 V at V_R = 75 V, T_j = 150℃	 I_R I_R	 - -	 - -	 5 80	nA
Total Capacitance at V_R = 0, f = 1 MHz	C_T	-	2	-	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_{rr} = 0.1 X I_R, R_L = 100 Ω	t_{rr}	-	-	3	μs

Dated: 29/03/2021 Rev: 01

Electrical Characteristics Curves

Fig 1. Reverse Current vs. Temperature

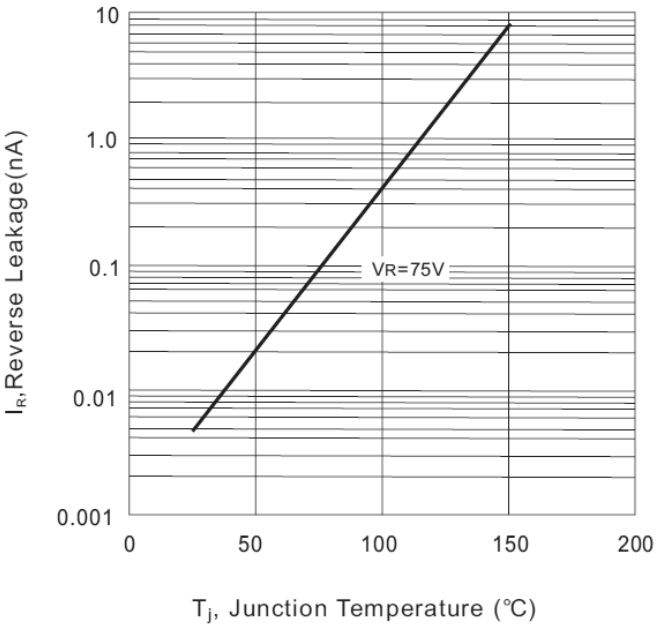


Fig 2. Forward Current vs. Forward Voltage

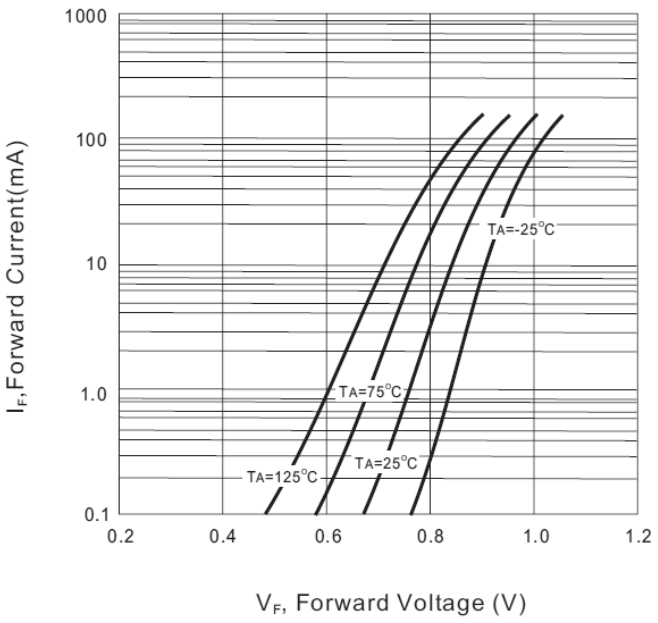
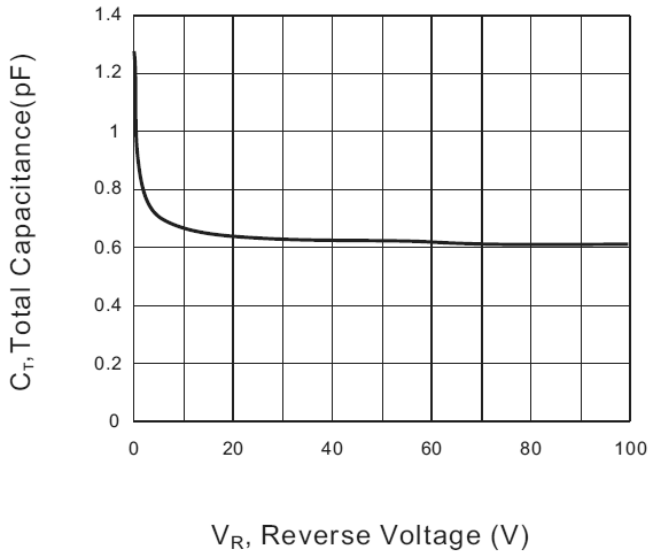
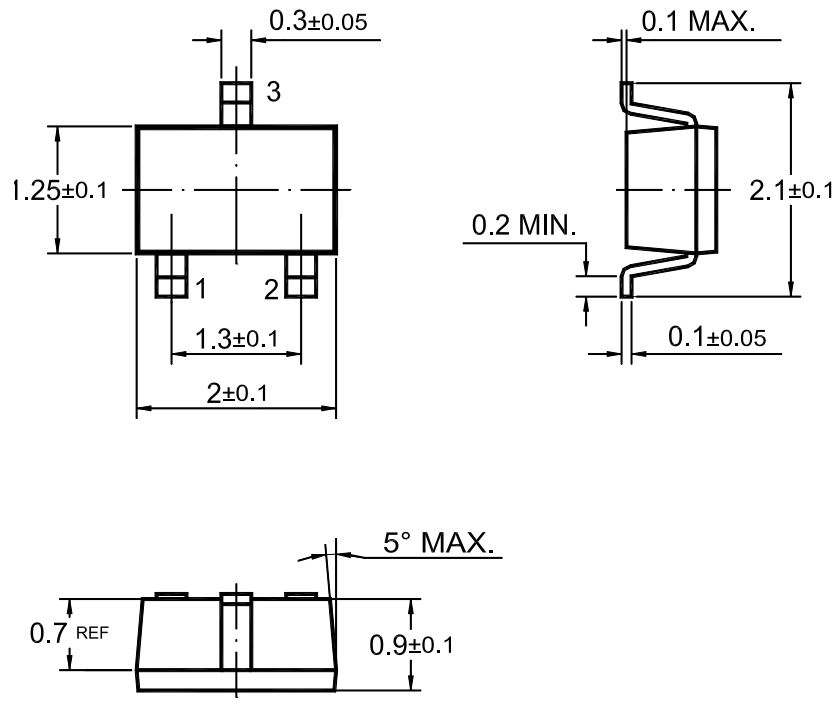


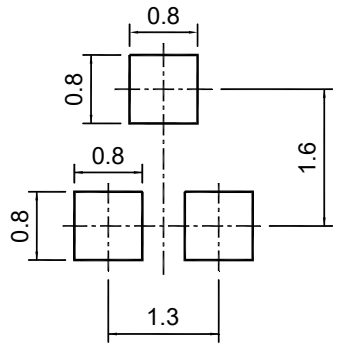
Fig 3. Capacitance vs. Reverse Voltage



PACKAGE OUTLINE(Dimensions in mm) SOT-323



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	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