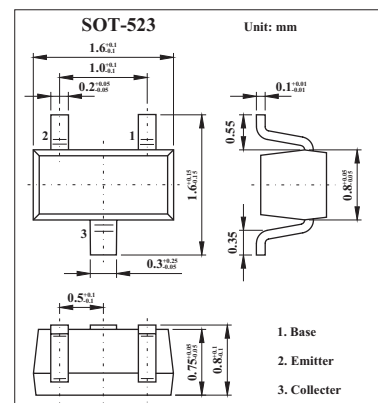


## SURFACE MOUNT LOW LEAKAGE DIODE

## BAV170T; BAV199T

## ■ Features

- Ultra-Small Surface Mount Package
- Very Low Leakage Current

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		85	V
Working Peak Reverse Voltage	$V_{RWM}$		85	V
DC Blocking Voltage	$V_R$		85	V
RMS Reverse Voltage	$V_{R(RMS)}$		60	V
Forward Continuous Current (Note 1)	$I_{FM}$	Single Diode	215	mA
		Double Diode	125	
Repetitive Peak Forward Current	$I_{FRM}$		500	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	@ $t = 1.0 \mu\text{s}$	4	A
		@ $t = 1.0 \text{ms}$	1	
		@ $t = 1.0 \text{s}$	0.5	
Power Dissipation (Note 1)	$P_D$		150	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$		833	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$		-65 to + 150	$^\circ\text{C}$

## Note

1. Device mounted on FR-4 PC board with recommended pad layout

**BAV170T; BAV199T**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R = 100 \mu\text{A}$	85			V
Forward Voltage (Note 2)	$V_F$	$I_F = 1.0 \text{ mA}$			0.90	V
		$I_F = 10 \text{ mA}$			1.0	
		$I_F = 50 \text{ mA}$			1.1	
		$I_F = 150 \text{ mA}$			1.25	
Leakage Current (Note 2)	$I_R$	$V_R = 75 \text{ V}$			5.0	nA
		$V_R = 75 \text{ V}; T_j = 150^\circ\text{C}$			80	
Total Capacitance	$C_T$	$f = 1 \text{ MHz}; V_R = 0 \text{ V}$		2		pF
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 10 \text{ mA},$ $I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			3.0	$\mu\text{s}$

Note

2. Short duration test pulse used to minimize self-heating effect.

## ■ Marking

Type	BAV170T	BAV199T
Marking	51	52