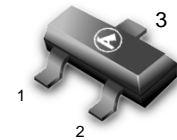
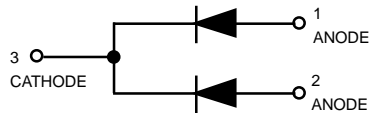


# Monolithic Dual Switching Diode

**BAV74LT1**

 CASE 318-08, STYLE 9  
 SOT-23 (TO-236AB)

## DEVICE MARKING

BAV74LT1 = JA

## MAXIMUM RATINGS (EACH DIODE)

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	50	Vdc
Forward Current	$I_F$	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

## THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (1) $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate, (2) $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	300	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
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## OFF CHARACTERISTICS

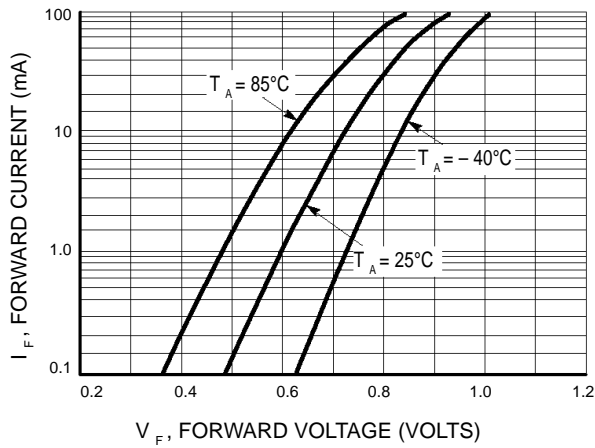
Reverse Breakdown Voltage ( $I_{(BR)} = 5.0 \mu\text{Adc}$ )	$V_{(BR)}$	50	—	Vdc
Reverse Voltage Leakage Current ( $V_R = 50 \text{ Vdc}, T_J = 125^\circ\text{C}$ )	$I_R$	—	100	$\mu\text{Adc}$
( $V_R = 50 \text{ Vdc}$ )		—	0.1	
Diode Capacitance ( $V_R = 0, f = 1.0 \text{ MHz}$ )	$C_D$	—	2.0	pF
Forward Voltage ( $I_F = 100 \text{ mAdc}$ )	$V_F$	—	1.0	Vdc
Reverse Recovery Time ( $I_F = I_R = 10 \text{ mAdc}, I_{R(REC)} = 1.0 \text{ mAdc}$ , measured at $I_R = 1.0 \text{ mA}, R_L = 100 \Omega$ )	$t_{rr}$	—	4.0	ns

 1. FR-5 =  $1.0 \times 0.75 \times 0.062$  in.

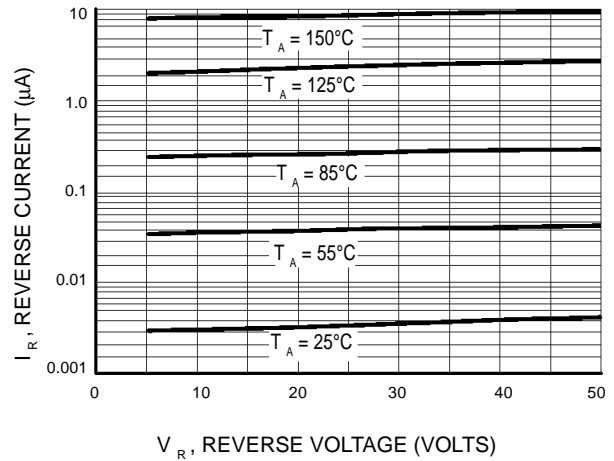
 2. Alumina =  $0.4 \times 0.3 \times 0.024$  in. 99.5% alumina.

**BAV74LT1**

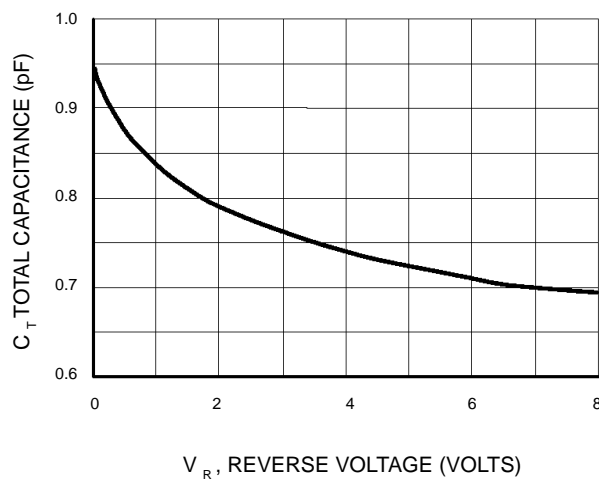
**Curves Applicable to Each Anode**



**Figure 1. Forward Voltage**



**Figure 3. Leakage Current**



**Figure 3. Capacitance**