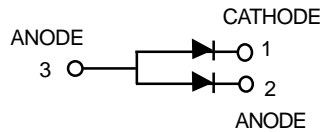


# Monolithic Dual Switching Diode

This switching diode has the following features:

- Low Leakage Current Applications
- Medium Speed Switching Times
- Available in 8mm Tape and Reel

Use BAW156LT1 to order the 7 inch/3,000 unit reel  
 Use BAW156LT3 to order the 13inch/10,000 unit reel



## BAW156LT1



CASE 318-08, STYLE12  
 SOT- 23 (TO-236AB)

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	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 <sup>(1)</sup> $T_A = 25^\circ\text{C}$	$P_D$	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate, <sup>(2)</sup> $T_A = 25^\circ\text{C}$	$P_D$	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	$T_J, T_{stg}$	-55 to +150	°C

### DEVICE MARKING

BAW156LT1 = JZ

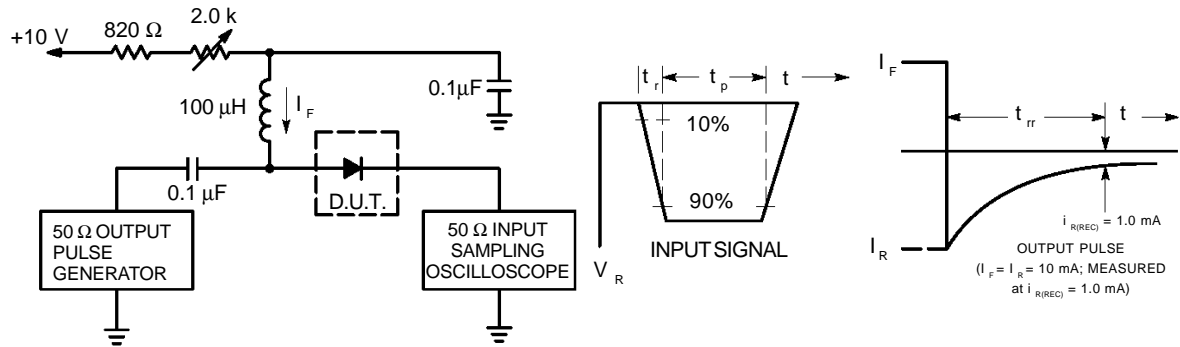
### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)(EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
<b>OFF CHARACTERISTICS</b>				
Reverse Breakdown Voltage( $I_{(BR)} = 100 \mu\text{Adc}$ )	$V_{(BR)}$	70	—	Vdc
Reverse Voltage Leakage Current ( $V_R = 70 \text{ Vdc}$ )	$I_R$	—	5.0	nAdc
( $V_R = 70 \text{ Vdc}, T_J = 150^\circ\text{C}$ )		—	80	
Diode Capacitance( $V_R = 0\text{V}, f = 1.0\text{MHz}$ )	$C_D$	—	2.0	pF
Forward Voltage ( $I_F = 1.0 \text{ mAdc}$ )	$V_F$	—	900	mVdc
( $I_F = 10 \text{ mAdc}$ )		—	1000	
( $I_F = 50 \text{ mAdc}$ )		—	1100	
( $I_F = 150 \text{ mAdc}$ )		—	1250	
Reverse Recovery Time ( $I_F = I_R = 10 \text{ mAdc}$ ) (Figure 1)	$t_{rr}$	—	3.0	$\mu\text{s}$

1. FR-5 = 1.0 x 0.75 x 0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

## BAW156LT1



- Notes:
1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.
  2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10mA.
  3.  $t_p \gg t_{rr}$

**Figure 1. Recovery Time Equivalent Test Circuit**