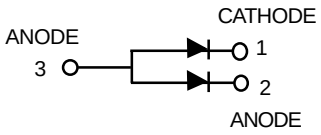
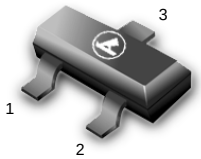
Monolithic Dual Switching Diode

BAW156LT1

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





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 (1) T_A = 25°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, (2) T_A = 25°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°C unless otherwise noted)(EACH DIODE)

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

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.

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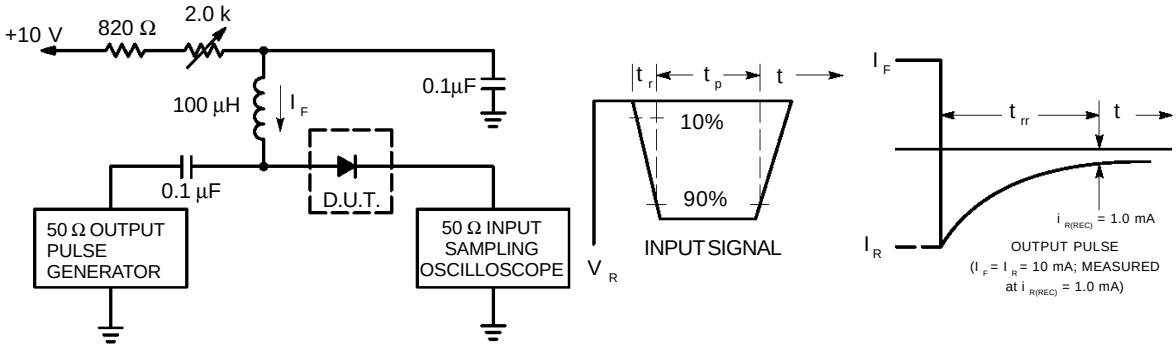

Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit