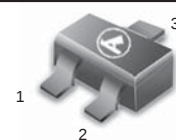


Dual Switching Diodes

BAW56WT1

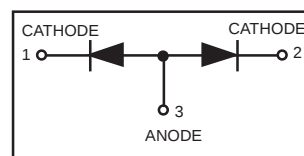

 CASE 419-04, STYLE 4
SOT-323 (SC-70)

DEVICE MARKING

BAW56WT1 = A1

MAXIMUM RATINGS (T_A = 25°C)

Rating	Symbol	Max	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	200	mW
Derate above 25°C		1.6	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	0.625	°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 _{θJA}	417	°C/W
Junction and Storage Temperature	T _J , T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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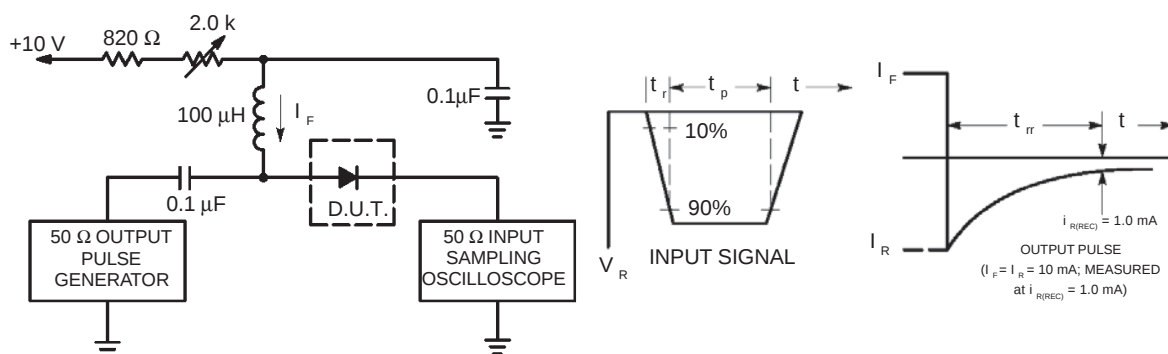
OFF CHARACTERISTICS

Reverse Breakdown Voltage (I _{BR} = 100 μAdc)	V _(BR)	70	—	Vdc
Reverse Voltage Leakage Current (V _R = 25 Vdc, T _J = 150°C)	I _R	—	30	μAdc
(V _R = 70 Vdc)		—	2.5	
(V _R = 70 Vdc, T _J = 150°C)		—	50	
Diode Capacitance (V _R = 0, f = 1.0 MHz)	C _D	—	2.0	pF
Forward Voltage (I _F = 1.0 mAdc)	V _F	—	715	mVdc
(I _F = 10 mAdc)		—	855	
(I _F = 60 mAdc)		—	1000	
(I _F = 150 mAdc)		—	1250	
Reverse Recovery Time (I _F = I _R = 10 mAdc, R _L = 100 Ω, I _{R(REC)} = 1.0 mAdc) (Figure 1)	t _{rr}	—	6.0	ns

1. FR-5 = 1.0 × 0.75 × 0.062 in.

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

BAW56WT1



- 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

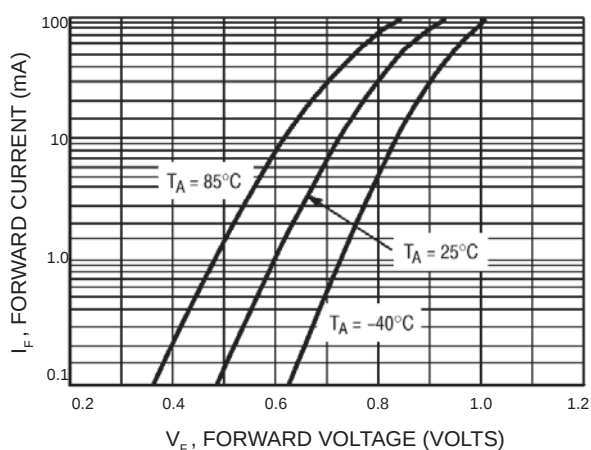


Figure 2. Forward Voltage

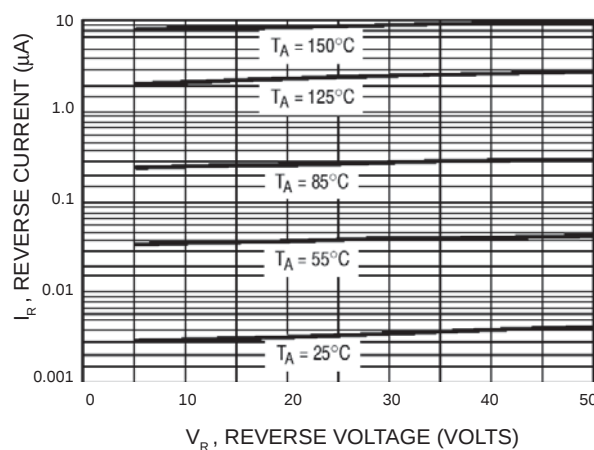


Figure 3. Leakage Current

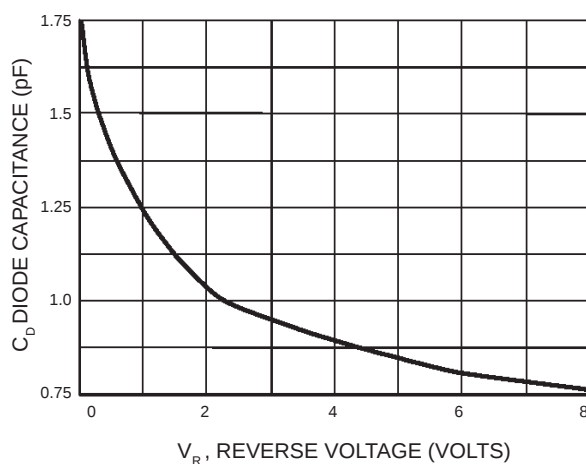


Figure 4. Capacitance