DESCRIPTION

The BAW56L is available in SOT-23 Package.

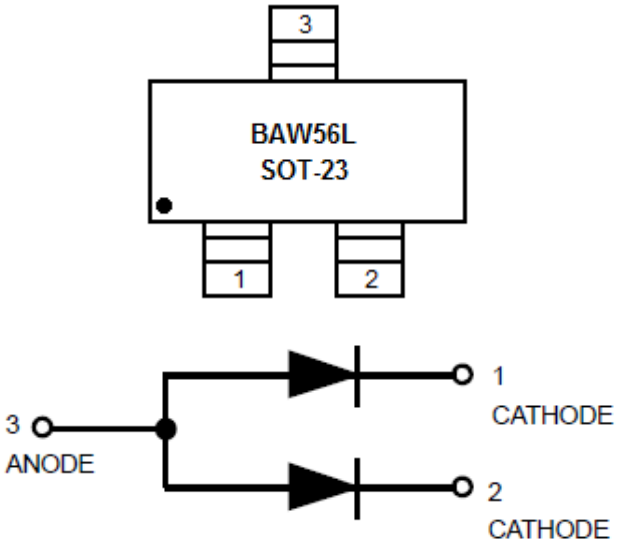
FEATURES

- Available in SOT-23 Package

ORDERING INFORMATION

Package Type	Part Number
SOT-23	BAW56L
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

EACH DIODE, T_A = 25°C

V_R, Reverse Voltage	70Vdc
I_F, Forward Current	200mAdc
$I_{FM(surge)}$, Peak Forward Surge Current	500mAdc

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Total Device Dissipation FR- 5 Board NOTE1			
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 NOTE2			
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 ~ +150	°C

NOTE1: FR-5 = 1.0 x 0.75 x 0.062 in.
NOTE2: Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

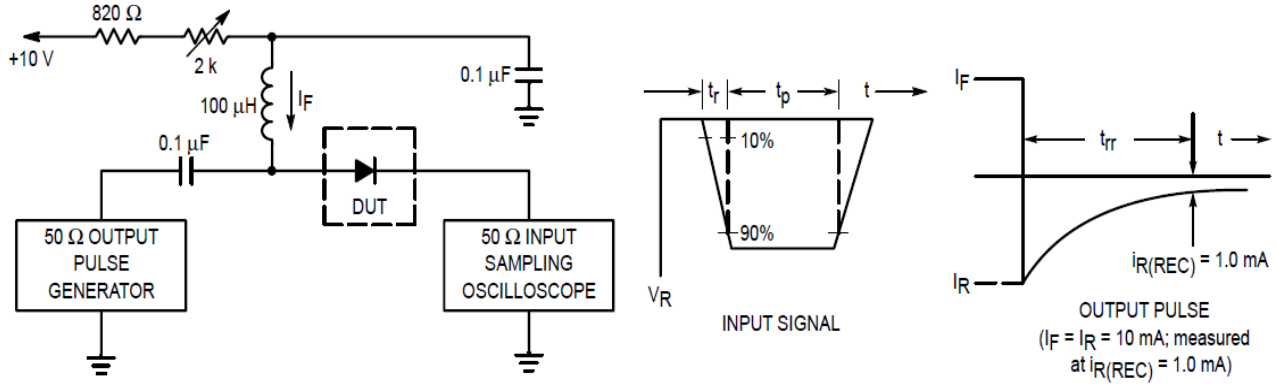
ELECTRICAL CHARACTERISTICS

EACH DIODE, T_A = 25°C, unless otherwise noted

Parameter	Symbol	Conditions	Min.	Max.	Unit
OFF CHARACTERISTICS					
Reverse Breakdown Voltage	$V_{(BR)}$	$I_{(BR)}$ = 100μAdc	70	-	Vdc
Reverse Voltage Leakage Current	I_R	V_R = 25Vdc, T_J = 150°C	-	30	μAdc
		V_R = 70Vdc		2.5	
		V_R = 70Vdc, T_J = 150°C		50	
Diode Capacitance	C_D	V_R = 0, f = 1.0MHz	-	2.0	pF
Forward Voltage	V_F	I_F = 1.0mAdc	-	715	mVdc
		I_F = 10mAdc		855	
		I_F = 50mAdc		1000	
		I_F = 150mAdc		1250	
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mAdc, R_L = 100Ω $I_{R(REC)}$ = 1.0mAdc (Figure 1)	-	6.0	ns

TYPICAL CHARACTERISTICS

Figure 1. Recovery Time Equivalent Test Circuit



NOTE: 1.A 2.0kΩ 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. tp » trr

CURVES APPLICABLE TO EACH CATHODE

Figure 2. Forward Voltage

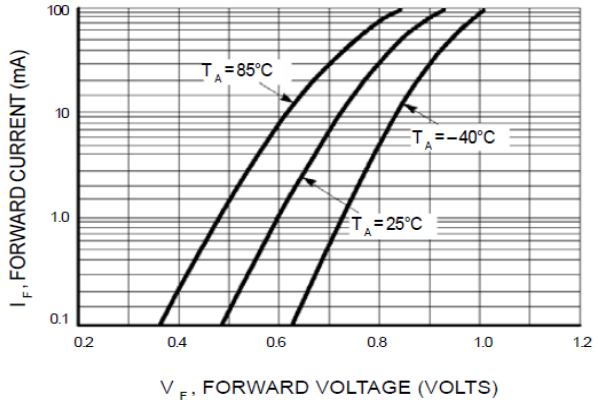


Figure 3. Leakage Current

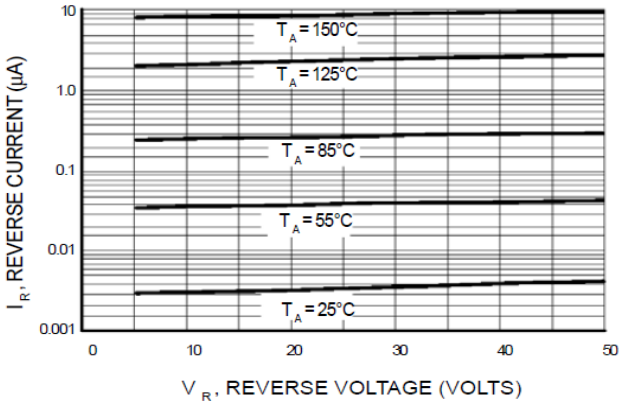
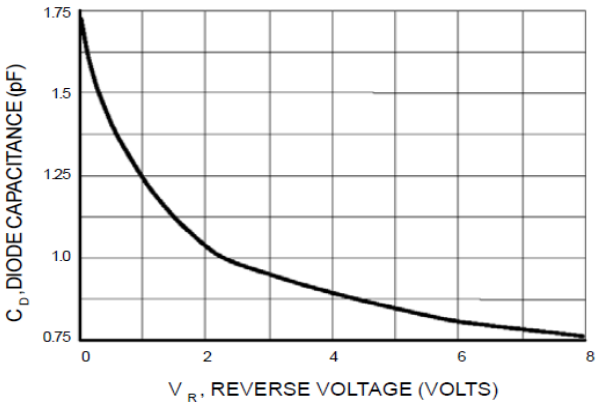
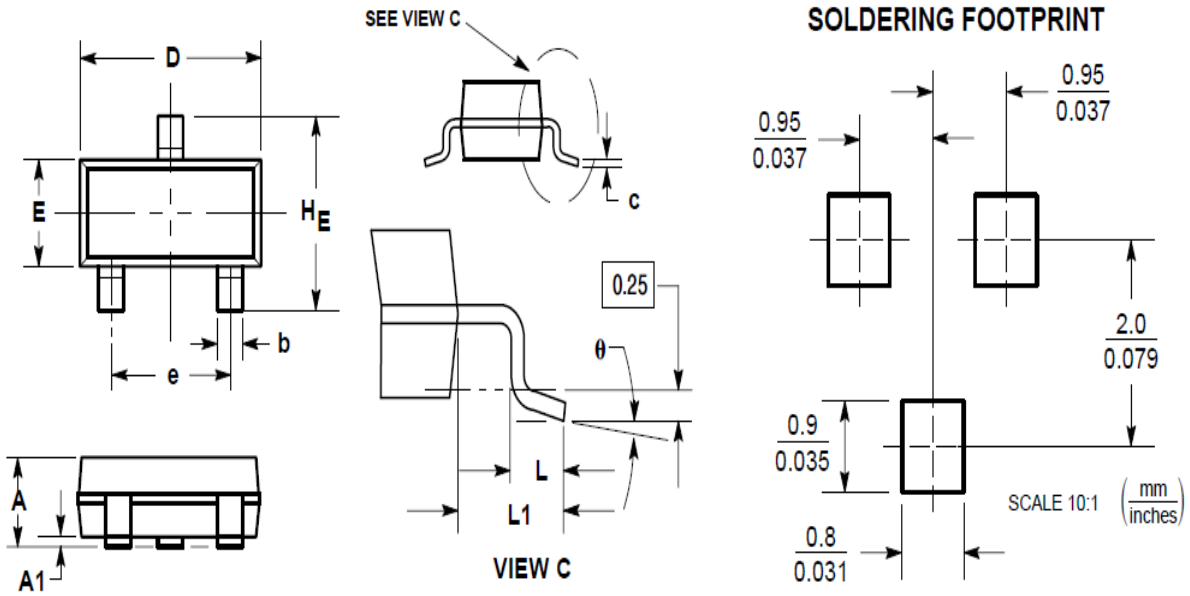


Figure 4. Capacitance



PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.89	1.11
A1	0.001	0.004	0.01	0.10
b	0.015	0.020	0.37	0.50
c	0.003	0.007	0.09	0.18
D	0.110	0.120	2.80	3.04
E	0.047	0.055	1.20	1.40
e	0.070	0.081	1.78	2.04
L	0.004	0.012	0.10	0.30
L1	0.014	0.029	0.35	0.69
H_E	0.083	0.104	2.10	2.64

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