Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Surface Mount Switching Diode

COMCHIP
www.comchip.com.tw

BAV99 Thru BAW56

Voltage: 70 Volts
Current: 215mA

Features

Fast Switching Speed

Surface Mount Package Ideally Suited for Automatic Insertio

For General Purpose Switching Applications

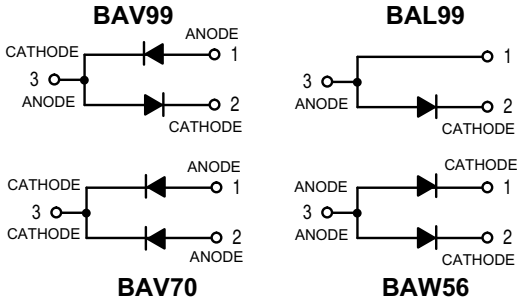
High Conductance

Mechanical data

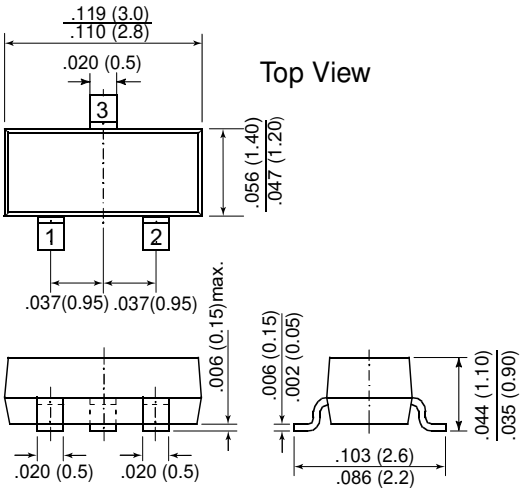
Case: SOT-23, Plastic

Approx. Weight: 0.008 gram

This diodes is also available in other configurations including a dual common cathode with type designation BAV70, a dual common anodes with type designation BAW56 and single chip inside with type Designation BAL99



SOT-23



Dimensions in inches (millimeters)

Maximum Ratings

Rating	Symbol	Value	Units
Continuous Reverse Voltage	V_R	70	V_{DC}
Peak Forward Current	I_F	215	mAdc
Peak Forward Surge Current	I_{FM}(surge)	500	mAdc

Thermal Characteristics

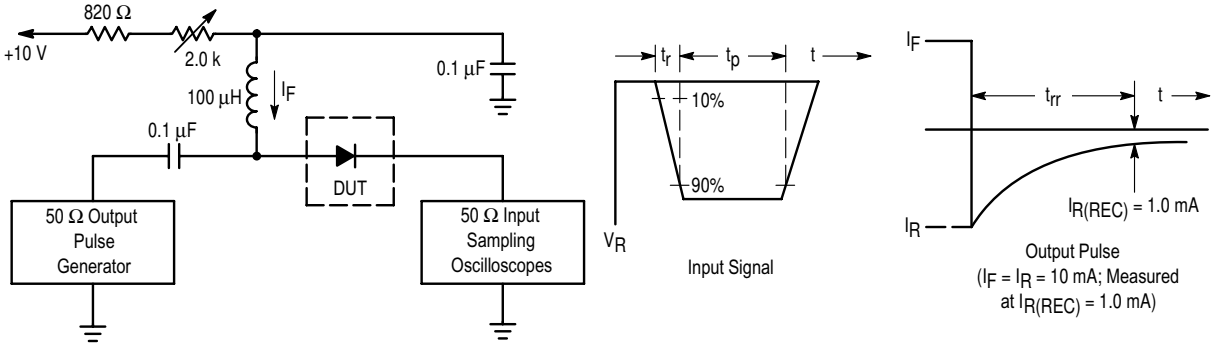
Characteristic	Symbol	Max	Units
Total Device Dissipation FR– 5 Board(1) T_A = 25°C	P_D	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate,(2) T_A = 25°C	P_D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_J, T_{stg}	–55 to +150	°C

Electrical Characterics (TA = 25°C unless otherwise noted)

Characteristic (OFF CHARACTERISTICS)	Symbol	Min	Max	Units
Reverse Breakdown Voltage ($I_{(BR)}$ = 100 uAdc)	$V_{(BR)}$	70	-	Vdc
Reverse Voltage Leakage Current V_R = 25 Vdc, T_J = 150°C	I_R	-	30	uAdc
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		1.5	pF
Forward Voltage I_F = 1.0 mAdc	VF	-	715	mV
I_F = 10 mAdc		-	855	
I_F = 50 mAdc		-	1000	
I_F = 150 mAdc		-	1250	
Reverse Recovery Time (I_F = I_R = 10 mAdc, $I_{R(REC)}$ = 1.0mAdc) R_L = 100Ω	Trr		6.0	nS

1.FR–5 = 1.0 X 0.75X 0.062 in. 2.Aluminum = 0.4X 0.3X 0.024 in. 99.5% aluminum.

RATING AND CHARACTERISTIC CURVES (BAV99 Thru BAW56)



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

Figure 1. Recovery Time Equivalent Test Circuit

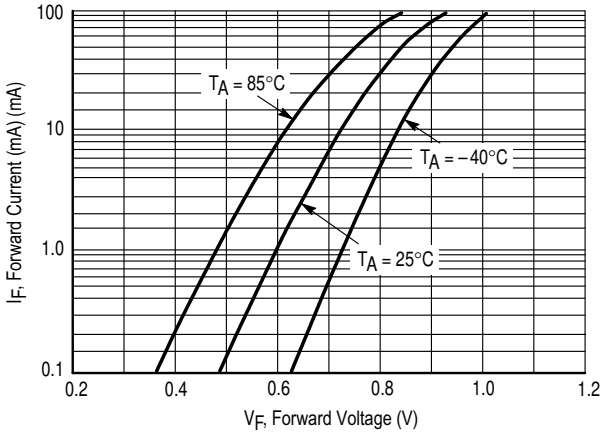


Figure 2. Forward Voltage

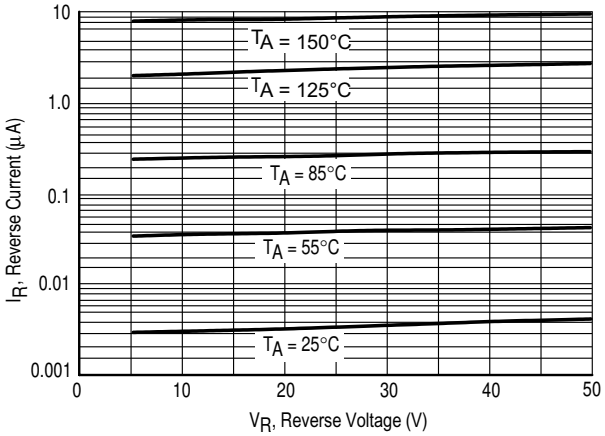


Figure 3. Leakage Current

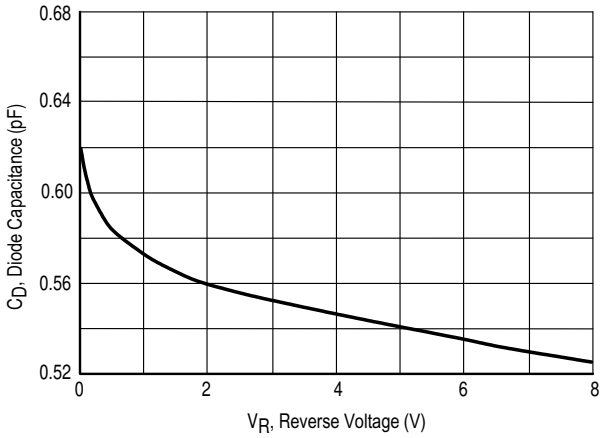


Figure 4. Capacitance