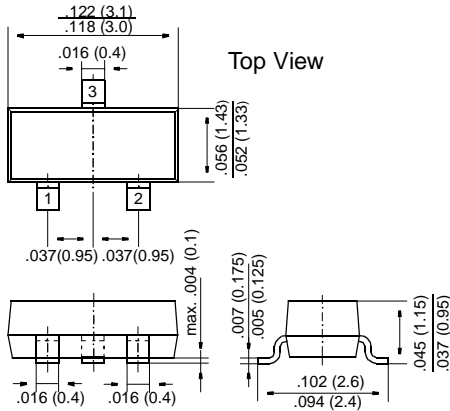


BAW56

Small Signal Diodes

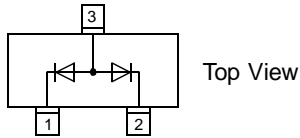
SOT-23



Dimensions in inches and (millimeters)

Marking

JD



FEATURES

- ◆ Silicon Epitaxial Planar Diodes
- ◆ Fast switching dual diode with common anode.
- ◆ This diode is also available in other configurations including: a single diode with type designation BAL99, a dual anode to cathode with type designation BAV99, and a dual common cathode with type designation BAV70.



MECHANICAL DATA

Case: SOT-23 Plastic Package

Weight: approx. 0.008 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings for a single diode at 25 °C ambient temperature unless otherwise specified.

	Symbol	Value	Unit
Reverse Voltage, Peak Reverse Voltage	V_R, V_{RM}	70	V
Forward Current (continuous)	I_F	250	mA
Non-Repetitive Peak Forward Current at $t = 1 \mu s$ at $t = 1 ms$ at $t = 1 s$	I_{FSM} I_{FSM} I_{FSM}	2 1 0.5	A A A
Power Dissipation at $T_{amb} = 25 \text{ }^\circ\text{C}$	P_{tot}	350 ¹⁾	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to +150	$^\circ\text{C}$

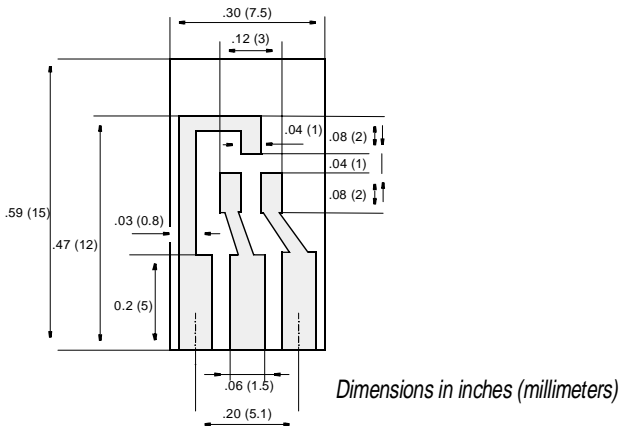
¹⁾ Device on fiberglass substrate, see layout

BAW56

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	V_F V_F V_F V_F	– – – –	– – – –	0.715 0.855 1.0 1.25	V V V V
Leakage Current at $V_R = 70 \text{ V}$ at $V_R = 70 \text{ V}, T_j = 150 \text{ }^\circ\text{C}$ at $V_R = 25 \text{ V}, T_j = 150 \text{ }^\circ\text{C}$	I_R I_R I_R	– – –	– – –	2.5 100 30	μA μA μA
Capacitance at $V_F = V_R = 0, f = 1 \text{ MHz}$	C_{tot}	–	–	2	pF
Reverse Recovery Time from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}$ measured at $I_R = 1 \text{ mA}, R_L = 100 \text{ } \Omega$	t_{rr}	–	–	6	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	430 ¹⁾	K/W
1) Device on fiberglass substrate, see layout					



Layout for R_{thJA} test

Thickness: Fiberglass 0.059 in (1.5 mm)

Copper leads 0.012 in (0.3 mm)