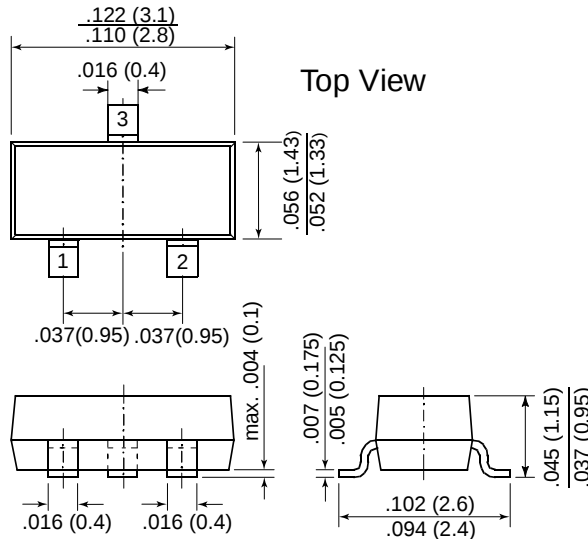
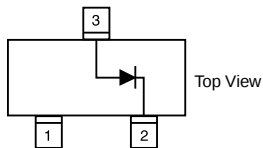




TO-236AB (SOT-23)

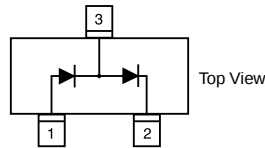


Dimensions in inches and (millimeters)



BAL99

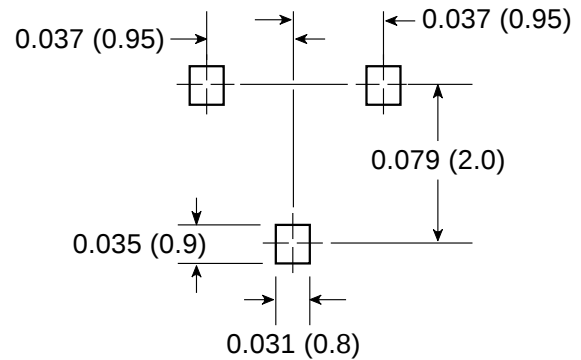
Marking: JF



BAV99

Marking: JE

Mounting Pad Layout



Features

- Silicon Epitaxial Planar Diode
- Fast switching diodes, especially suited for automatic insertion
- This diode is also available in other configurations including a dual common anode with type designation BAW56

Mechanical Data

Case: SOT-23 Plastic Package

Weight: approx. 0.008g

Packaging Codes/Options:

E8/10K per 13" reel (8mm tape), 30K/box

E9/3K per 7" reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	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 $t = 1\mu s$	I_{FSM}	2	A
at $t = 1ms$	I_{FSM}	1	A
at $t = 1s$	I_{FSM}	0.5	A
Power Dissipation at $T_{amb} = 25^\circ C$	P_{tot}	350 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	430 ⁽¹⁾	$^\circ C/W$
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_s	-65 to +150	$^\circ C$

Note:

(1) Device on Fiberglass Substrate, see layout on second page

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	at I _F = 1mA	—	—	0.715	V
		at I _F = 10mA	—	—	0.855	V
		at I _F = 50mA	—	—	1.0	V
		at I _F = 150mA	—	—	1.25	V
Leakage Current	I _R	V _R = 70V	—	—	2.5	μA
		V _R = 70V, T _J = 150°C	—	—	100	μA
		V _R = 25V, T _J = 150°C	—	—	30	μA
Capacitance	C _{iss}	V _F = V _R = 0 f = 1MHz	—	—	1.5	pF
Reverse Recovery Time	t _{rr}	I _F = 10mA, I _R = 10mA I _{rr} = 1mA, R _L = 100Ω	—	—	6	ns

(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)

