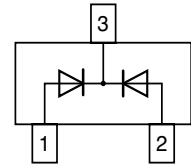
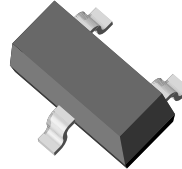


Small Signal Switching Diode, Dual

Features

- Silicon Epitaxial Planar Diode
- Fast switching dual diode with common cathode
- This diode is also available in other configurations including: a dual common anode to cathode with type designation BAV99-V, a dual common anode with type designation BAW56-V, and a single diode with type designation BAL99-V.
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002-96/EC



18108

Mechanical Data

Case: SOT23 Plastic case

Weight: approx. 8.8 mg

Packaging Codes/Options:

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

Parts Table

Part	Ordering code	Marking	Remarks
BAV70-V	BAV70-V-GS18 or BAV70-V-GS08	JJ	Tape and Reel

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	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	$t_p = 1\text{ }\mu\text{s}$	I_{FSM}	2	A
	$t_p = 1\text{ ms}$	I_{FSM}	1	A
	$t_p = 1\text{ s}$	I_{FSM}	0.5	A
Power dissipation		P_{tot}	350 ¹⁾	mW

¹⁾ Device on fiberglass substrate, see layout

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	430 ¹⁾	$^{\circ}\text{C/W}$
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature range		$T_j = T_{stg}$	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Device on Fiberglass substrate, see layout on second page.

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 1\text{ mA}$	V_F			715	mV
	$I_F = 10\text{ mA}$	V_F			855	mV
	$I_F = 50\text{ mA}$	V_F			1	V
	$I_F = 150\text{ mA}$	V_F			1.25	V
Reverse current	$V_R = 70\text{ V}$	I_R			2.5	μA
	$V_R = 70\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$	I_R			50	μA
	$V_R = 25\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$	I_R			30	μA
Diode capacitance	$V_R = 0, f = 1\text{ MHz}$	C_D			1.5	pF
Reverse recovery time	$I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{ V}, R_L = 100\ \Omega$	t_{rr}			6	ns

Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

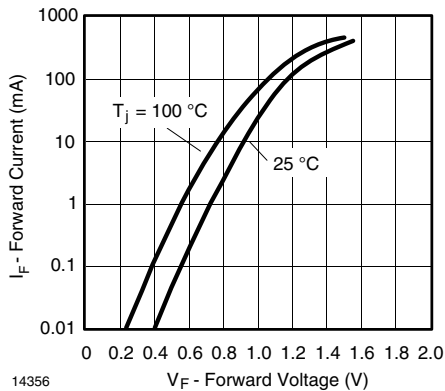


Figure 1. Forward Current vs. Forward Voltage

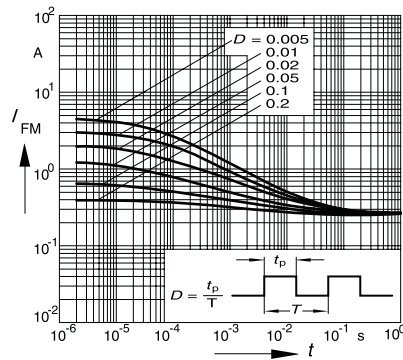
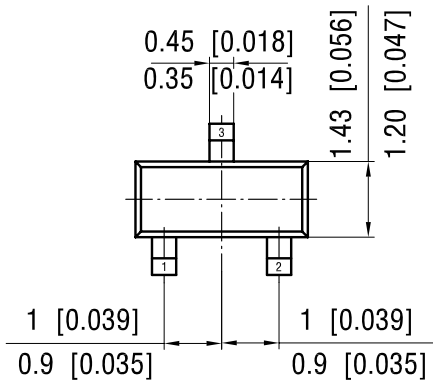
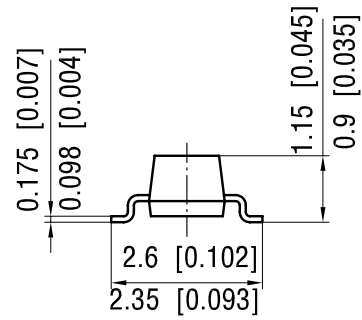
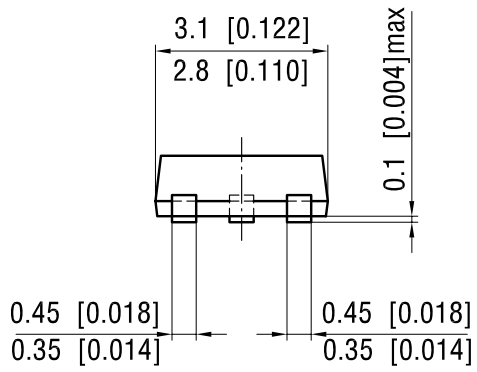
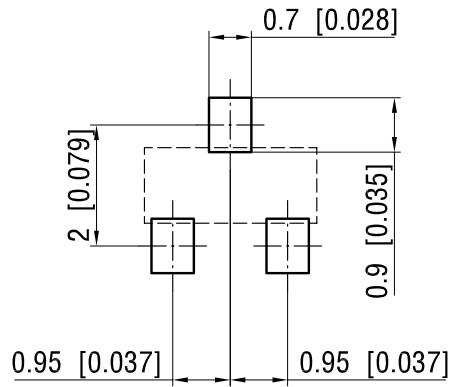


Figure 2. Peak forward current $I_{FM} = f(t_p)$

Package Dimensions in mm (Inches)



foot print recommendation:



17418