

Vishay Semiconductors

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.



 Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

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Mechanical Data

Case: SOT-23

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 °C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit	
Reverse voltage, peak reverse voltage		V _R , V _{RM}	70	V	
Forward current (continuous)		I _F	250	mA	
	t _p = 1 μs	I _{FSM}	2	A	
Non repetitive peak forward current	t _p = 1 ms	I _{FSM}	1	A	
ourion.	t _p = 1 s	I _{FSM}	0.5	A	
Power dissipation		P _{tot}	350 ¹⁾	mW	

¹⁾ Device on fiberglass substrate, see layout

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Thermal Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	430 ¹⁾	°C/W
Junction temperature		T _j	150	°C
Storage temperature range		$T_j = T_{stg}$	- 65 to + 150	°C

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

Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min.	Тур.	Max.	Unit
Forward voltage	I _F = 1 mA	V_{F}			715	mV
	I _F = 10 mA	V_{F}			855	mV
	I _F = 50 mA	V _F			1	V
	I _F = 150 mA	V _F			1.25	V
Reverse current	V _R = 70 V	I _R			2.5	μΑ
	V _R = 70 V, T _j = 150 °C	I _R			50	μΑ
	V _R = 25 V, T _j = 150 °C	I _R			30	μΑ
Diode capacitance	V _R = 0, f = 1 MHz	C _D			1.5	pF
Reverse recovery time	I_F = 10 mA to I_R = 1 mA, V_R = 6 V, R_L = 100 Ω	t _{rr}			6	ns

Typical Characteristics

T_{amb} = 25 °C, unless otherwise specified

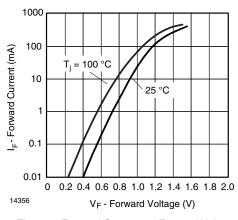


Figure 1. Forward Current vs. Forward Voltage

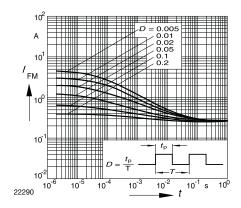
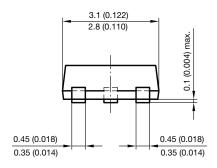


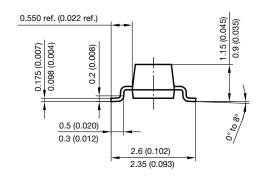
Figure 2. Peak Forward Current $I_{FM} = f(t_p)$

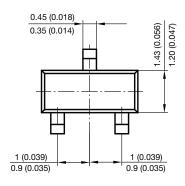


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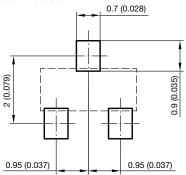
Package Dimensions in millimeters (inches): SOT-23







Foot print recommendation:



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