Small Signal Switching Diode, Dual

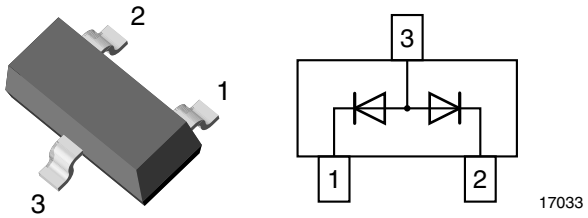
Features

- Silicon Epitaxial Planar Diode
- Fast switching dual diode with common anode
- This diode is also available in other configurations including: a single with type designation BAL99, a dual anode to cathode with type designation BAV99, and a dual common cathode with type designation BAV70.
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Pb-free

e3

RoHS COMPLIANT



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
BAW56-V	BAW56-V-GS18 or BAW56-V-GS08	JD	Tape and Reel

Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Repetitive peak reverse voltage = Working peak reverse voltage = DC Blocking voltage		$V_R = V_{RRM}$	70	V
Forward continuous current		I_F	250	mA
Non repetitive peak forward current	t_p = 1 µs	I_{FSM}	2	A
	t_p = 1 ms	I_{FSM}	1	A
	t_p = 1 s	I_{FSM}	0.5	A
Power dissipation		P_{tot}	350[1)]	mW

[1)] Device on fiberglass substrate, see layout

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambiant air		R_{thJA}	430	K/W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	- 65 to + 150	°C

[1] Device on fiberglass substrate, see layout

Electrical Characteristics

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

Parameter	Test condition	Symbol	Min.	Typ.	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			1000	mV
	I_F = 150 mA	V_F			1250	mV
Reverse current	V_R = 70 V	I_R			2.5	µA
	V_R = 70 V, T_j = 150 °C	I_R			100	µA
	V_R = 25 V, T_j = 150 °C	I_R			30	µA
Diode capacitance	$V_F = V_R$ = 0, f = 1 MHz	C_D			2	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

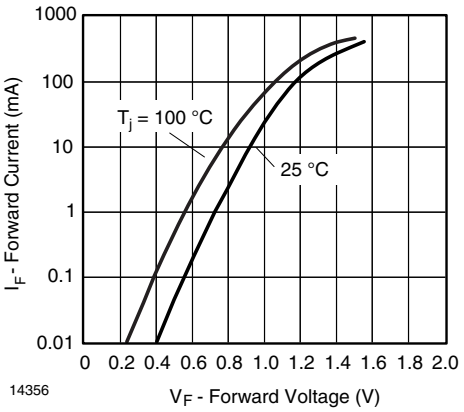


Figure 1. Forward Current vs. Forward Voltage

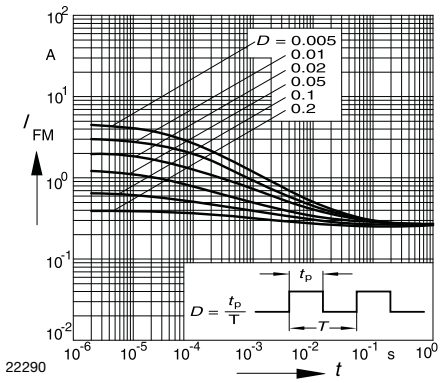


Figure 2. Peak forward current $I_{FM} = f(t_p)$

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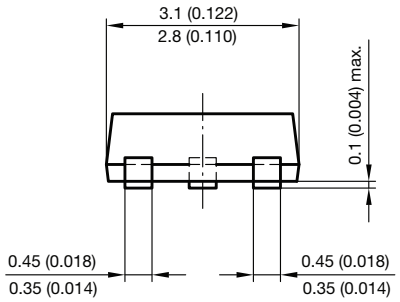
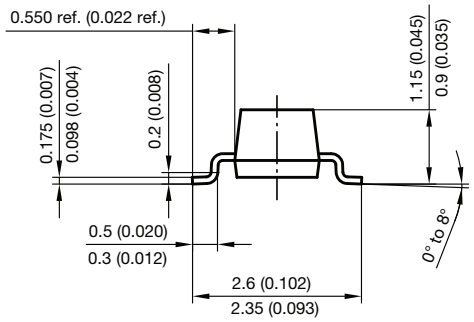
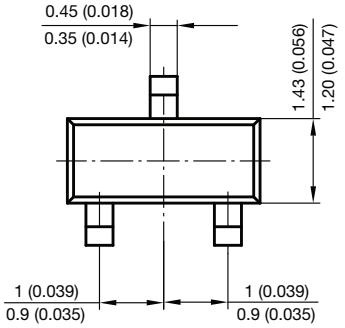
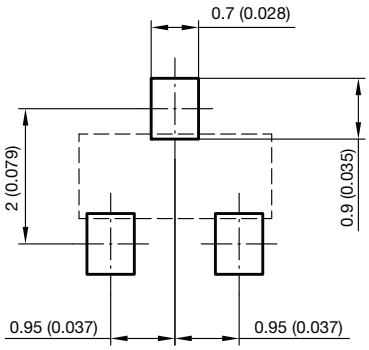
Package Dimensions in millimeters (inches): **SOT-23**







Foot print recommendation:



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