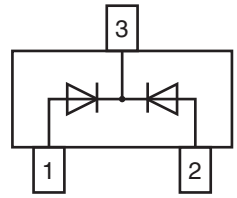
Small Signal Switching Diode, Dual



18108

FEATURES

- Silicon Epitaxial Planar Diode
- Fast switching dual diode with common cathode
- This diode is also available in other configurations including: a dual with type designation BAV99-V, a dual common anode with type designation BAW56-V, and a single diode with type designation BAL99-V
- AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free
e3
RoHS COMPLIANT

MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.8 mg

Packaging codes/options:

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

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

PARTS TABLE

PART	ORDERING CODE	TYPE MARKING	INT. CONSTRUCTION	REMARKS
BAV70-V	BAV70-GS18 or BAV70-V-GS08	JJ	Dual common cathode	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Peak reverse voltage		V_{RRM}	70	V
Reverse voltage		V_R	70	V
Forward current (continuous)		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 [1]		P_{tot}	350	mW

Note

[1] Device on fiberglass substrate, see layout

THERMAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air [1]		R_{thJA}	430	K/W
Junction temperature		T_j	150	°C
Storage temperature range		$T_J = T_{stg}$	- 65 to + 150	°C

Note

[1] Device on fiberglass substrate, see layout

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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			0.715	V
	I_F = 10 mA	V_F			0.855	V
	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			2500	nA
	V_R = 70 V, T_j = 150 °C	I_R			50	µA
	V_R = 25 V, T_j = 150 °C	I_R			30	µA
Diode capacitance	V_R = 0 V, 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)

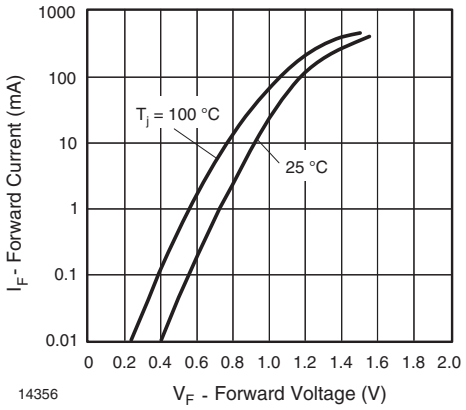

Fig. 1 - Forward Current vs. Forward Voltage

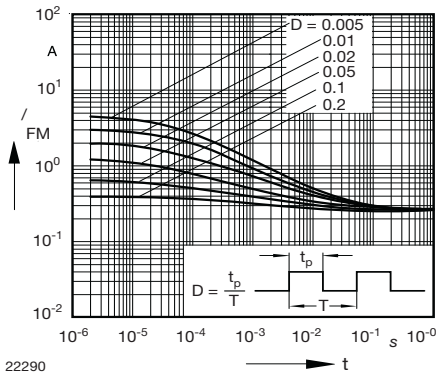

Fig. 2 - Peak forward current/$_{FM}$ = f (t_p)

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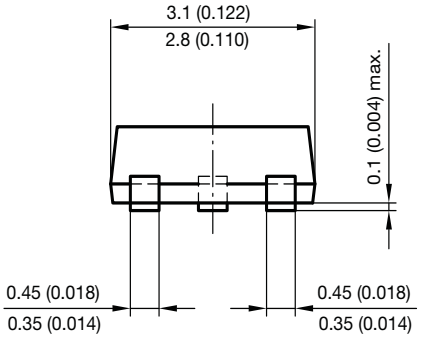
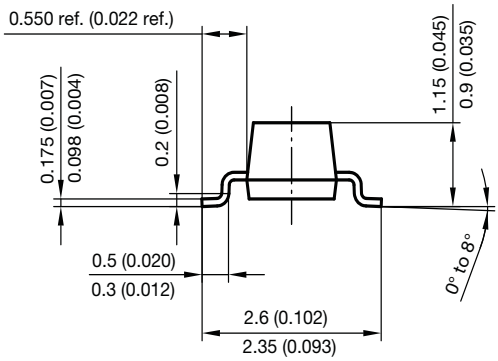
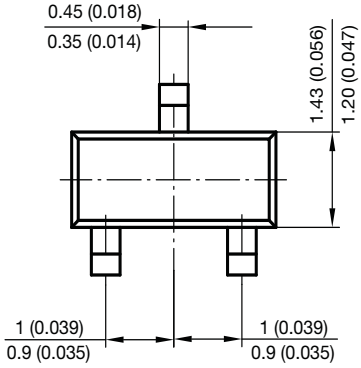
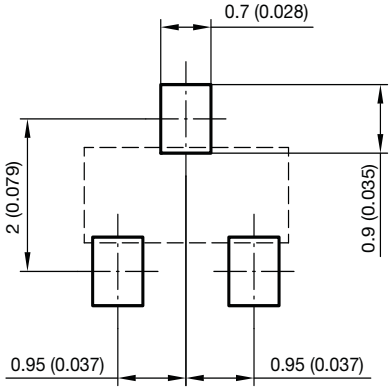
PACKAGE DIMENSIONS in millimeters (inches): **SOT-23**







Foot print recommendation:



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