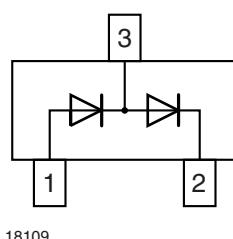


Small Signal Switching Diode, Dual in Series



18109

FEATURES

- Fast switching speed
- High conductance
- Surface mount package ideally suited for automatic insertion
- Connected in series
- AEC-Q101 qualified
- Base P/N-G3 - green, commercial grade
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(S-2008)

MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.1 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

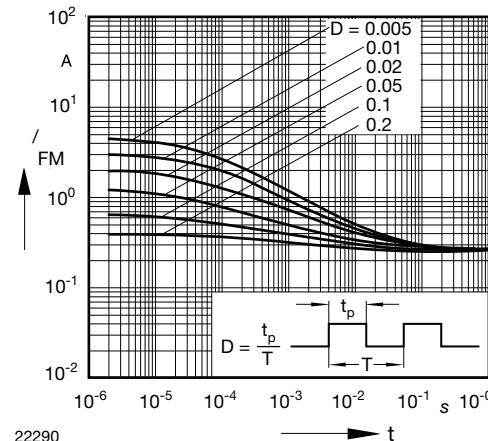
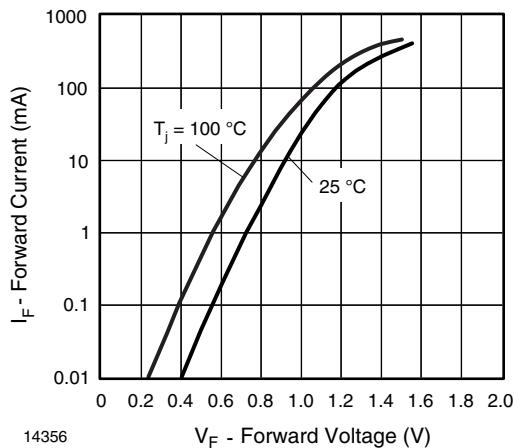
08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE				
PART	ORDERING CODE	INTERNAL CONSTRUCTION	TYPE MARKING	REMARKS
BAV99-G	BAV99-G3-08 or BAV99-G3-18	Dual diodes serial	JEG	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Non repetitive peak reverse voltage		V_{RM}	100	V
Repetitive peak reverse voltage = working peak reverse voltage = DC blocking voltage		$V_{RRM} = V_{RWM} = V_R$	70	
Peak forward surge current	$t_p = 1 \text{ s}$	I_{FSM}	1	A
	$t_p = 1 \mu\text{s}$		4.5	
Average forward current	Half wave rectification with resistive load and $f \geq 50 \text{ MHz}$, on ceramic substrate 10 mm x 8 mm x 0.7 mm	$I_{F(AV)}$	150	mA
Forward current	On ceramic substrate 10 mm x 8 mm x 0.7 mm	I_F	250	
Power dissipation	On ceramic substrate 10 mm x 8 mm x 0.7 mm	P_{tot}	300	mW

THERMAL CHARACTERISTICS ($T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	On ceramic substrate 10 mm x 8 mm x 0.7 mm	R_{thJA}	430	K/W
Junction and storage temperature range		$T_J = T_{stg}$	- 55 to + 150	°C
Operating temperature range		T_{op}	- 55 to + 150	°C

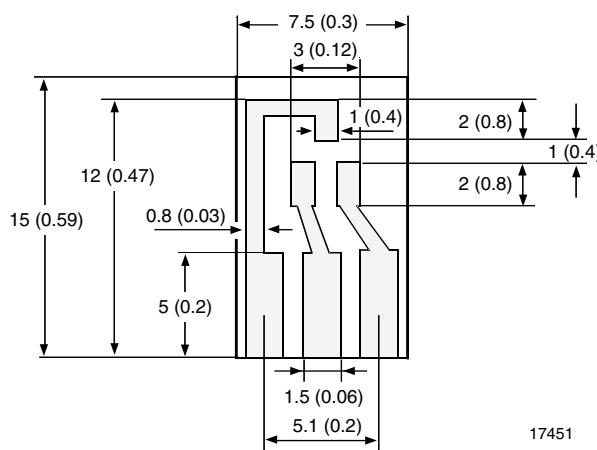
ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^\circ C$, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 1 \text{ mA}$	V_F			0.715	V
	$I_F = 10 \text{ mA}$				0.855	V
	$I_F = 50 \text{ mA}$				1	V
	$I_F = 150 \text{ mA}$				1.25	V
Reverse current	$V_R = 70 \text{ V}$	I_R			2500	nA
	$V_R = 70 \text{ V}, T_j = 150^\circ C$				50	µA
	$V_R = 25 \text{ V}, T_j = 150^\circ C$				30	µA
Diode capacitance	$V_R = 0, f = 1 \text{ MHz}$	C_D			1.5	pF
Reverse recovery time	$I_F = 10 \text{ mA} \text{ to } I_R = 1 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \Omega$	t_{rr}			6	ns

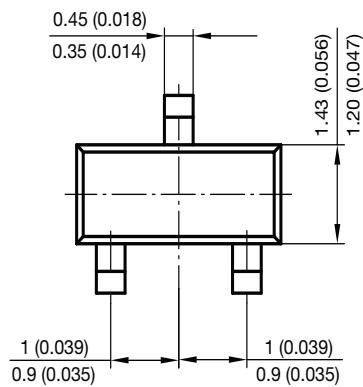
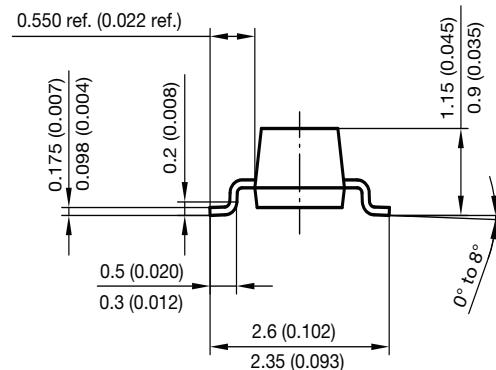
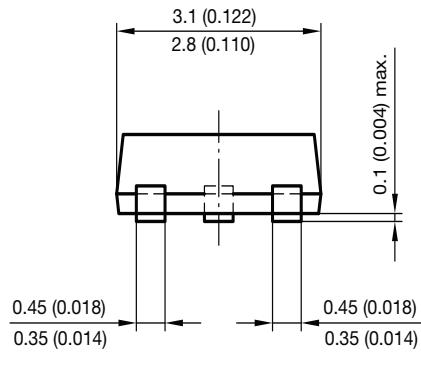
TYPICAL CHARACTERISTICS ($T_{amb} = 25^\circ C$, unless otherwise specified)

LAYOUT FOR R_{thJA} TEST

Thickness:

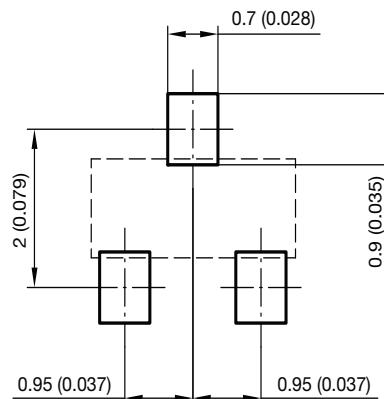
Fiberglass 1.5 mm (0.059 inches)

Copper leads 0.3 mm (0.012 inches)



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


Foot print recommendation:



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 Rev. 8 - Date: 23.Sept.2009
 17418

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