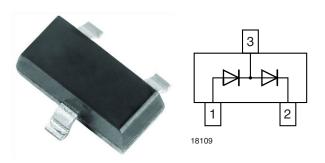


Small Signal Switching Diode, Dual in Series



LINKS TO ADDITIONAL RESOURCES







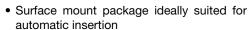




MECHANICAL DATA

FEATURES

- · Fast switching speed
- High conductance





• AEC-Q101 qualified available (part number on request)

• Molding compound meets UL 94 V-0 flammability rating



- Base P/N-G3 green, commercial grade
- · Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





RoHS HALOGEN FREE

GREEN (5-2008)

• 00T 00	
Case: SOT-23	

Weight: approx. 9.2 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	AEC-Q101 QUALIFIED	TYPE MARKING	CIRCUIT CONFIGURATION	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
BAV99-G	BAV99-G3-08	no	JEG	Dual serial	3 000 (8 mm tape on 7" reel)	15 000
BAV99-G	BAV99-G3-18	no	JEG	Duai Seriai	10 000 (8 mm tape on 13" reel)	10 000

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Non repetitive peak reverse voltage		V _{RM}	100			
Repetitive peak reverse voltage = working peak reverse voltage = DC blocking voltage		$V_{RRM} = V_{RWM} = V_{R}$	70	V		
Peak forward surge current (1)	t _p = 1 s	l	1	А		
	t _p = 1 μs	IFSM	4.5			
Average forward current (1)	Half wave rectification with resistive load and f ≥ 50 MHz	I _{F(AV)}	250	mA		
Forward current (1)		I _F	350			
Power dissipation	on FR-4 board with recommended soldering footprint	В	270	mW		
	Infinite heatsink	P _{tot}	390			

Note

(1) Infinite heatsink

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air	according to JEDEC® 51-3 on FR-4 board with recommended soldering footprint	R _{thJA}	460	K/W		
Thermal resistance junction to lead	Infinite heatsink	R_{thJL}	320	K/W		
Junction temperature		Tj	150	°C		
Storage temperature range		T _{stg}	-65 to +150	°C		
Operating temperature range		T _{op}	-55 to +150	°C		



ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	TEST CONDITION SYMBOL			
Forward voltage	I _F = 1 mA		0.715	V	
	I _F = 10 mA	V	0.855	V	
	I _F = 50 mA	V _F	1	V	
	I _F = 150 mA		1.25	V	
Reverse current	V _R = 70 V		100	nA	
	V _R = 70 V, Tj = 150 °C	I _R	50	μΑ	
	V _R = 25 V, Tj = 150 °C		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 CHARACTERISICS (T_{amb} = 25 °C, unless otherwise specified)

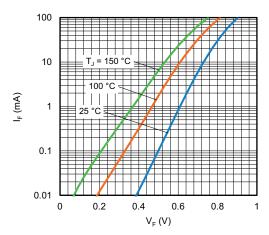


Fig. 1 - Forward Current vs. Forward Voltage

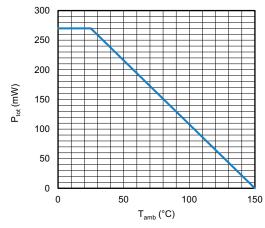


Fig. 2 - Admissible Power Dissipation vs. Ambient Temperature

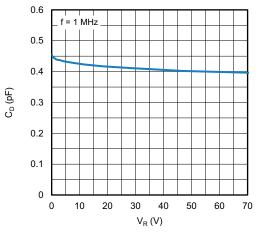


Fig. 3 - Typical Capacitance vs. Reverse Voltage

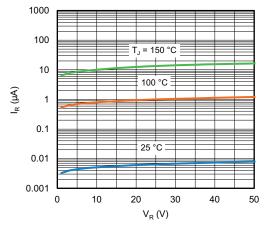
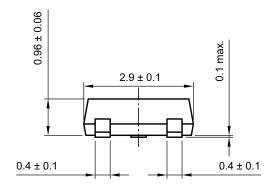
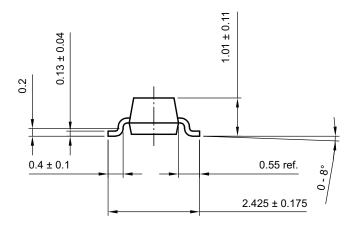


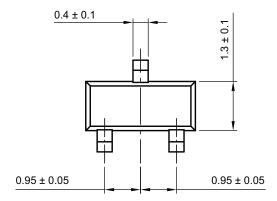
Fig. 4 - Typical Reverse Leakage Current vs. Reverse Voltage



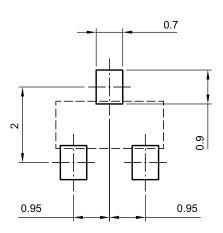
PACKAGE DIMENSIONS in millimeters: **SOT-23**







footprint recommendation:



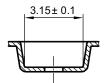
Created - Date: 18-Oct-2021 Rev. 01 - Date: 18-Jan-2022 S8-V-3929.01-009 (4)



CARRIER TAPE SOT-23

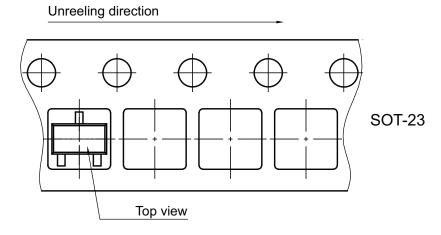
A-A Section 0.229 ± 0.013 0.229 ± 0.013 0.229 ± 0.013 0.229 ± 0.013 0.229 ± 0.013

B-B Section



Created Date: 04-Feb-2010 Rev. Date: 07-Feb-2022 S8-V-3929.01-005 (4)

ORIENTATION IN CARRIER TAPE SOT-23



Created Date: 04-Feb-2010 Rev. Date: 07-Nov-2022 S8-V-3929.01-005 (4)



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