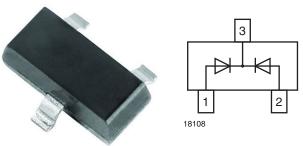


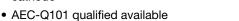
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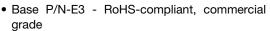
Small Signal Switching Diode, Dual



FEATURES

- · Silicon epitaxial planar diode
- · Fast switching dual diode with common cathode







- Base P/N-HE3 RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

DESIGN SUPPORT TOOLS click logo to get started



MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.8 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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS		
BAV70	BAV70-E3-08 or BAV70-E3-18	Common cathode	JJ	Tape and reel		
	BAV70-HE3-08 or BAV70-HE3-18	Common camode	00			

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	
	t _p = 1 μs	I _{FSM}	2	Α	
Non repetitive peak forward current	t _p = 1 ms	I _{FSM}	1	Α	
	t _p = 1 s	I _{FSM}	0.5	Α	
Power dissipation (1)		P _{tot}	350	mW	

Note

⁽¹⁾ Device on fiberglass substrate

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		Tj	150	°C	
Storage temperature range		T _{stg}	-65 to +150	°C	
Operating temperature range		Top	-55 to +150	°C	

Note

⁽¹⁾ Device on fiberglass substrate



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
	I _F = 1 mA	V _F			0.715	V
Forward voltage	I _F = 10 mA	V _F			0.855	V
Torward voitage	I _F = 50 mA	V_{F}			1	V
	I _F = 150 mA	V _F			1.25	V
	V _R = 70 V	I _R			2500	nA
Reverse current	$V_R = 70 \text{ V}, T_j = 150 ^{\circ}\text{C}$	I _R			50	μΑ
	$V_R = 25 \text{ V}, T_j = 150 ^{\circ}\text{C}$	I _R			30	μΑ
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 CHARACTERISICS ($T_{amb} = 25 \, ^{\circ}C$, unless otherwise specified)

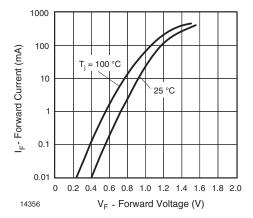


Fig. 1 - Forward Current vs. Forward Voltage

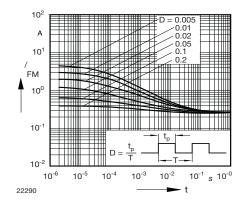


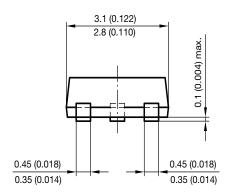
Fig. 2 - Peak forward current/_{FM} = f (t_p)

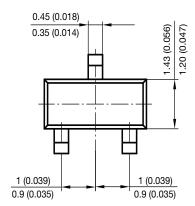


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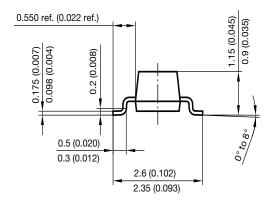
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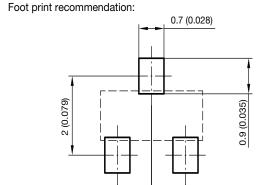
PACKAGE DIMENSIONS in millimeters (inches): SOT-23





Document no.: 6.541-5014.01-4 Rev. 8 - Date: 23.Sept.2009 17418





0.95 (0.037)

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