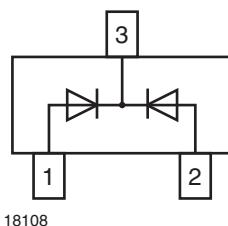


## Small Signal Switching Diode, Dual



### FEATURES

- Silicon epitaxial planar diode
- Fast switching dual diode with common cathode
- AEC-Q101 qualified available (part number on request)
- Base P/N-G3 - green, commercial grade
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### DESIGN SUPPORT TOOLS

click logo to get started



### 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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAV70-G	BAV70-G3-08 or BAV70-G3-18	Common cathode	JJG	Tape and reel

### ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25^\circ C$ , 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	$t_p = 1 \mu s$	$I_{FSM}$	2	A
	$t_p = 1 \text{ ms}$	$I_{FSM}$	1	A
	$t_p = 1 \text{ s}$	$I_{FSM}$	0.5	A
Power dissipation (1)		$P_{tot}$	350	mW

**Note**

(1) Device on fiberglass substrate

### THERMAL CHARACTERISTICS ( $T_{amb} = 25^\circ C$ , 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		$T_{stg}$	-65 to +150	°C
Operating temperature range		$T_{op}$	-55 to +150	°C

**Note**

(1) Device on fiberglass substrate

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
	$I_F = 10 \text{ mA}$	$V_F$			0.855	V
	$I_F = 50 \text{ mA}$	$V_F$			1	V
	$I_F = 150 \text{ mA}$	$V_F$			1.25	V
Reverse current	$V_R = 70 \text{ V}$	$I_R$			2500	nA
	$V_R = 70 \text{ V}, T_j = 150^\circ C$	$I_R$			50	$\mu\text{A}$
	$V_R = 25 \text{ V}, T_j = 150^\circ C$	$I_R$			30	$\mu\text{A}$
Diode capacitance	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_D$			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

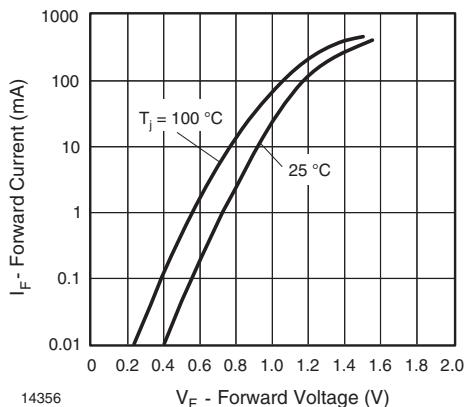
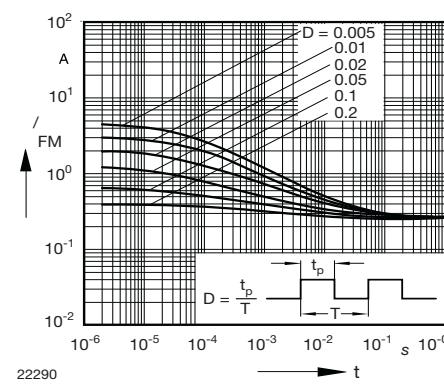
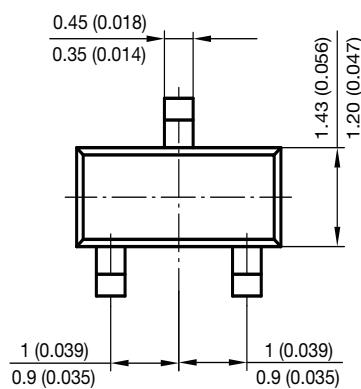
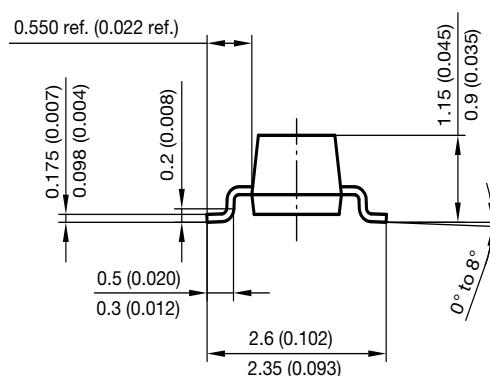
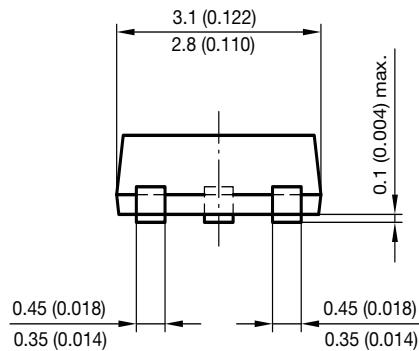
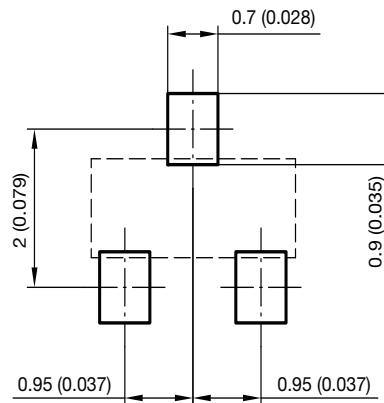
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25^\circ C$ , unless otherwise specified)


Fig. 1 - Forward Current vs. Forward Voltage


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

**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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