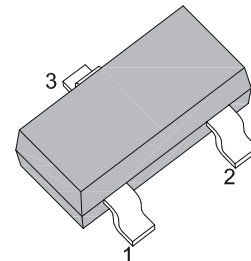


## Three Terminals SMD Switching Diode

### Features

- Silicon Epitaxial Planar Diode
- Fast Switching Dual Diode with Common Cathode
- RoHS Compliant

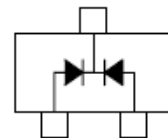


SOT-23



### Mechanical Data

<b>Case:</b>	SOT-23, Plastic Package
<b>Terminals:</b>	Solderable per MIL-STD-202G, Method 208
<b>Weight:</b>	Approx. 0.008 gram



### Maximum Ratings\* ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	BAV70	Unit	Conditions
	Marking Code	A4/JA		
<b>VRRM</b>	Maximum Repetitive Reverse Voltage	70	V	
<b>IF(AV)</b>	Average Rectified Forward Current	200	mA	
<b>IFSM</b>	Non-Repetitive Peak Forward Surge Current	Pulse Width=1.0s	1.0	A
		Pulse Width=1.0 $\mu$ s	2.0	
<b>PD</b>	Power Dissipation	350	mW	
<b>RthJA</b>	Thermal Resistance, Junction to Ambient	357	$^{\circ}C/W$	
<b>TJ</b>	Operating Junction Temperature	150	$^{\circ}C$	
<b>TSTG</b>	Storage Temperature Range	-55 to +150	$^{\circ}C$	

**Note:** \* These ratings are limiting values above which the serviceability of the diode may be impaired.

1: These ratings are based on a maximum junction temperature of 150 degree C.

2: These are steady limits. The factory should be consulted on applications involving pulse or low duty cycle operations.

# Three Terminals SMD Switching Diode

## BAV70

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

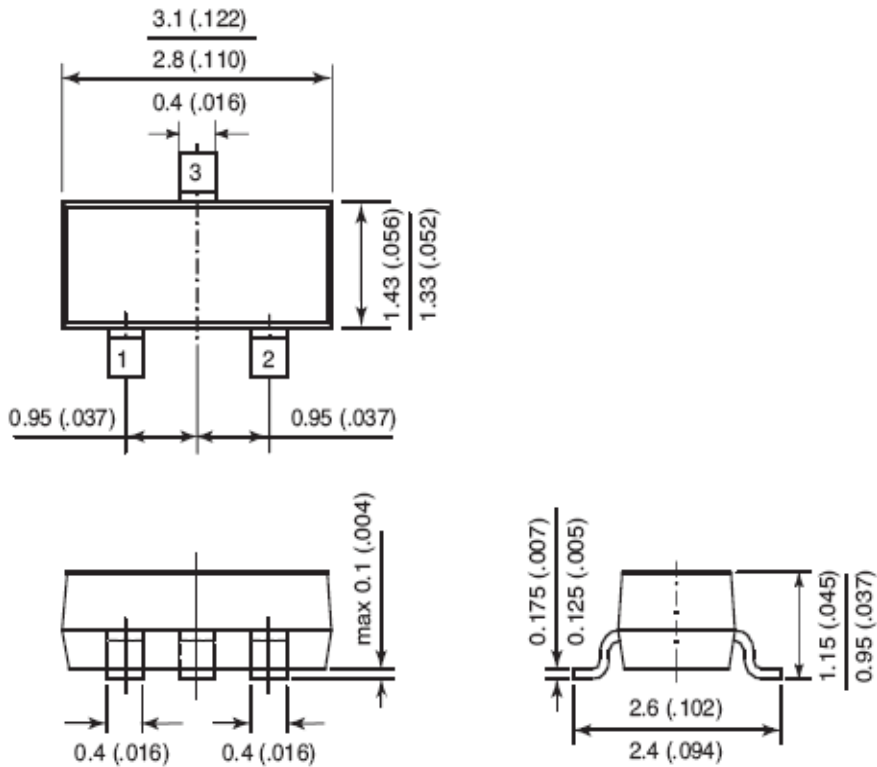
Symbol	Description	Min.	Max.	Unit	Conditions
<b>V<sub>R</sub></b>	Breakdown Voltage	75	-	V	I <sub>R</sub> =100μA
<b>V<sub>F</sub></b>	Forward Voltage	-	0.715	V	I <sub>F</sub> =1.0mA
			0.855		I <sub>F</sub> =10mA
			1.0		I <sub>F</sub> =50mA
			1.25		I <sub>F</sub> =150mA
<b>I<sub>R</sub></b>	Reverse Current	-	5.0	μA	V <sub>R</sub> =70V
			60		V <sub>R</sub> =25V, T <sub>A</sub> =150° C
			100		V <sub>R</sub> =70V, T <sub>A</sub> =150° C
<b>C<sub>T</sub></b>	Total Capacitance	-	1.5	pF	V <sub>R</sub> =0V, f=1MHz
<b>T<sub>rr</sub></b>	Reverse Recovery Time	-	6.0	nS	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>RR</sub> =1.0mA, R <sub>L</sub> =100Ω

# Three Terminals SMD Switching Diode

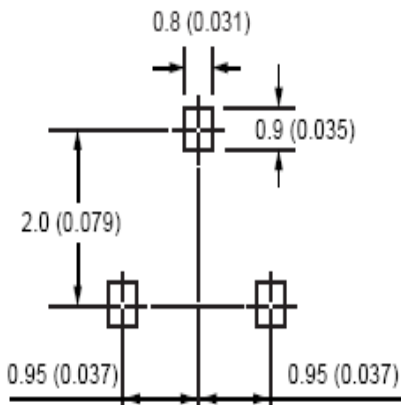
BAV70

Dimensions in mm (inch)

SOT-23



Mounting Pad Layout in mm (inch)

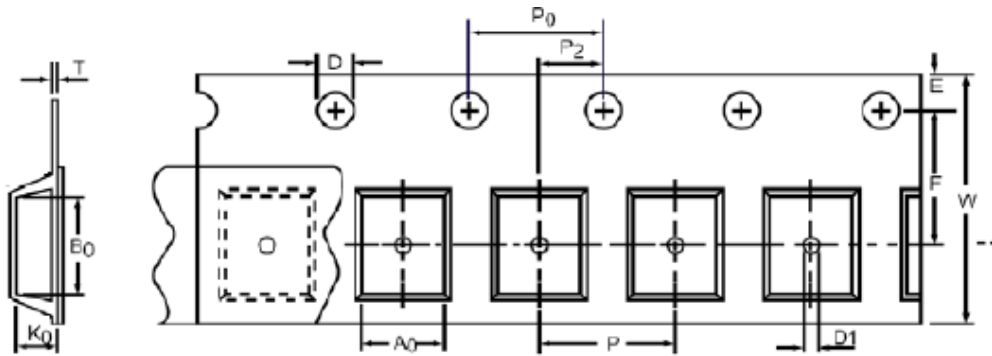


# Three Terminals SMD Switching Diode

BAV70

## Packing Information:

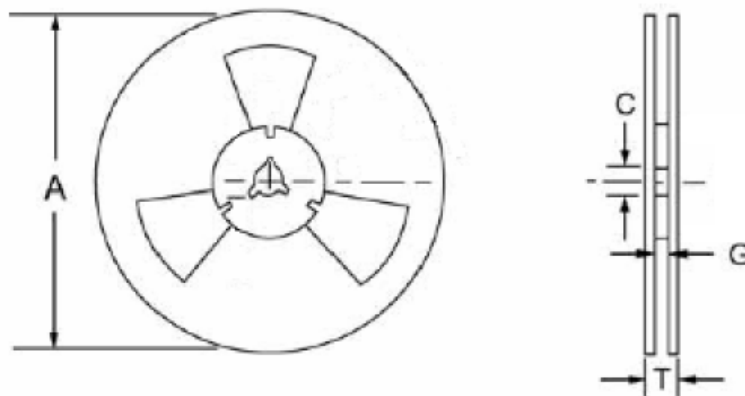
### Carrier Tape Dimensions (in mm)



Product Type	A0	B0	K0	D	P0	P
	See Note				1.55±0.5	4.0±0.1
SOT-23	W	E	T	D1	F	P2
	8.0+0.3/-0.1	1.75±0.1	0.38±0.1	1.0±0.05	3.5±0.5	2.0±0.05

**Note:** Symbol A0, B0, K0 are determined by the maximum dimensions of the component size.  
The clearance between the component and the cavity must be within 0.05 mm (0.002") min. to 0.50 mm (0.02") max. for 8 mm tape.

### Reel Dimensions (in mm)



A	C	G	T
178.0±2.0	13.0±0.5	8.4±2.0	14.4 max.

# Three Terminals SMD Switching Diode

**BAV70**

## Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Inner Carton
TR70 Tape & Reel	3000/Reel	15000

## Inner Carton Size Information:

Cartoon Size
190X190X80 (in mm)

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