



# DATA SHEET

## BAV70

### SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 75 Volts **POWER** 250mWatts

**SOT-23** Unit: inch (mm)

#### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

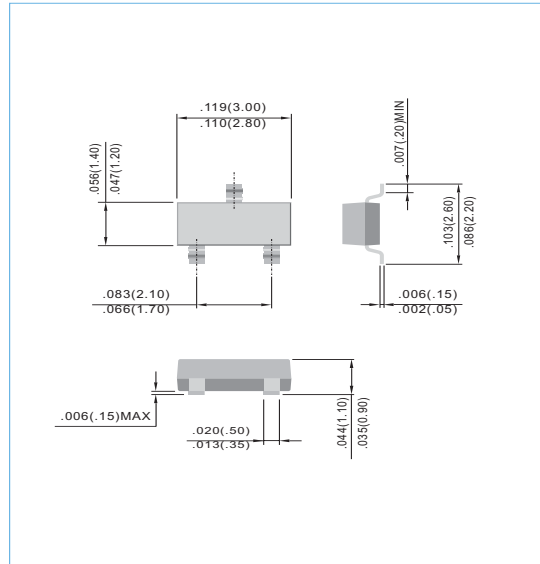
#### MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-202G, Method 208

Approx. Weight: 0.008 gram

Marking Code: JA



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

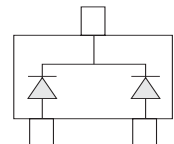
Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAV70	UNITS
Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	$I_o$	150	mA
Peak Forward Surge Current, 1.0us	$I_{FSM}$	2.0	A
Power Dissipation Derate Above 25°C	$P_{TOT}$	250	mW
Maximum Forward Voltage	$V_F$	0.715 @ $I_F=0.001A$ 0.855 @ $I_F=0.01A$ 1.0 @ $I_F=0.05A$ 1.25 @ $I_F=0.15A$	V
Maximum DC Reverse Current at 25V 75V	$I_R$	0.03 2.5	$\mu A$
Maximum Junction Capacitance( Notes 1)	$C_J$	1.5	pF
Maximum Reverse Recovery Time (Notes 2)	$T_{RR}$	4.0	ns
Maximum Thermal Resistance	$R_{\theta JA}$	625	°C / W
Junction Temperature Range	$T_J$	-55 TO +150	°C

**NOTE:**

1.  $C_J$  at  $V_R=0$ ,  $f=1MHz$
2. From  $I_F=10mA$  to  $I_R=1mA$ ,  $V_R=6Volts$ ,  $R_L=100\Omega$

COMMON CATHODE



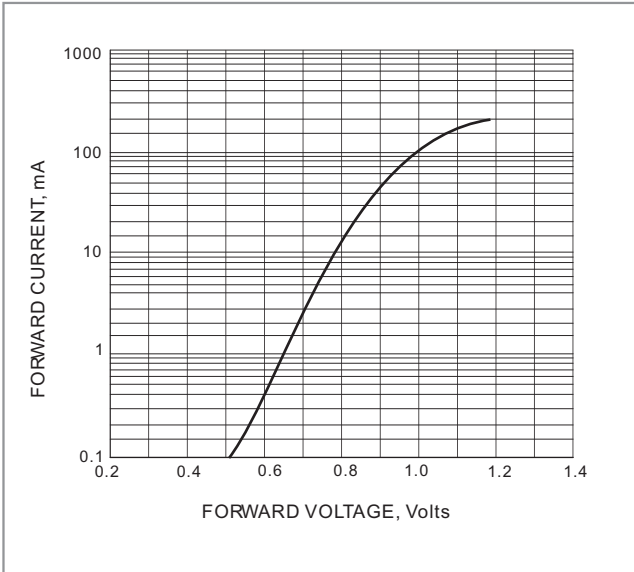


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

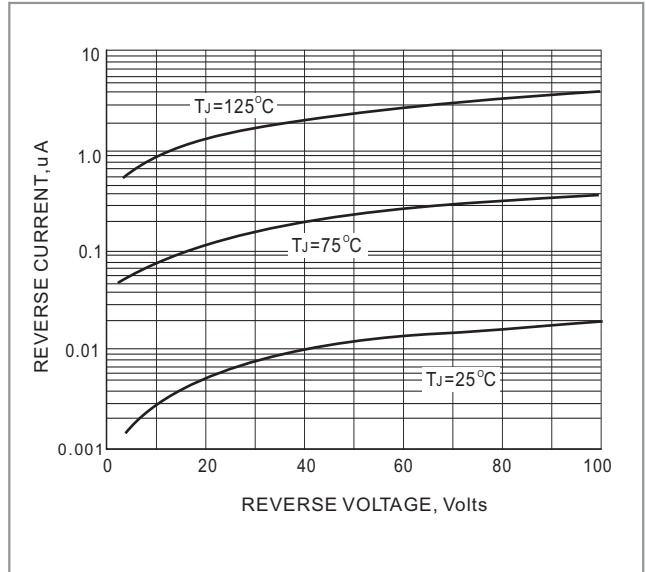


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

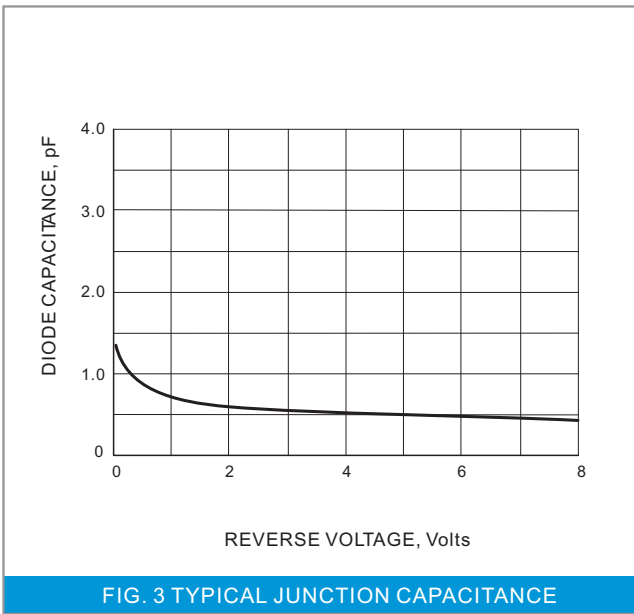


FIG. 3 TYPICAL JUNCTION CAPACITANCE

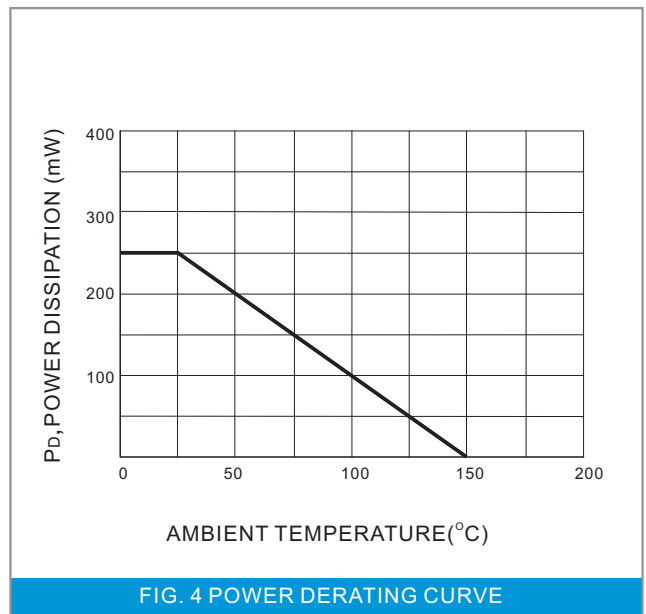


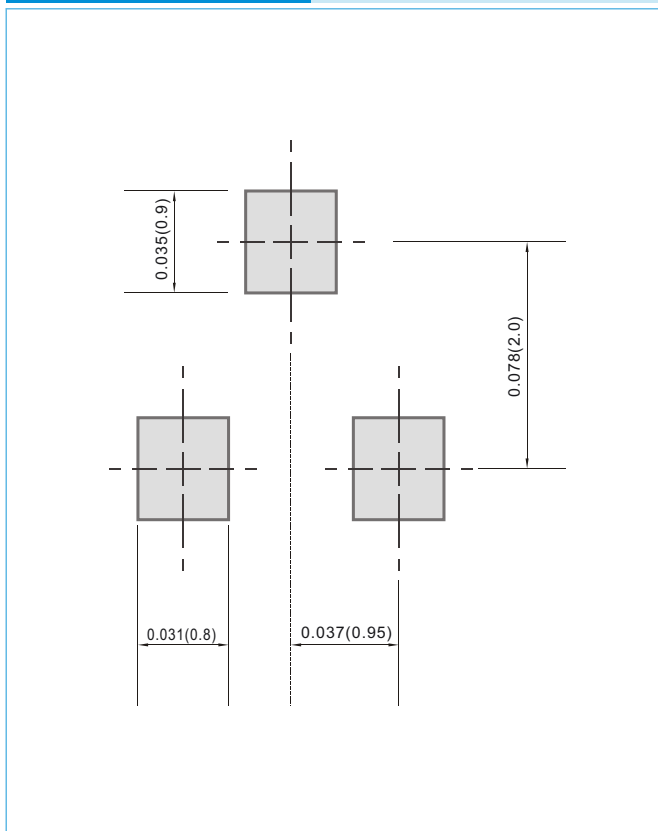
FIG. 4 POWER DERATING CURVE



## MOUNTING PAD LAYOUT

SOT-23

Unit: inch (mm)



## ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 3.0K per 7" plastic Reel

## LEGAL STATEMENT

### IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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