

# Diodes

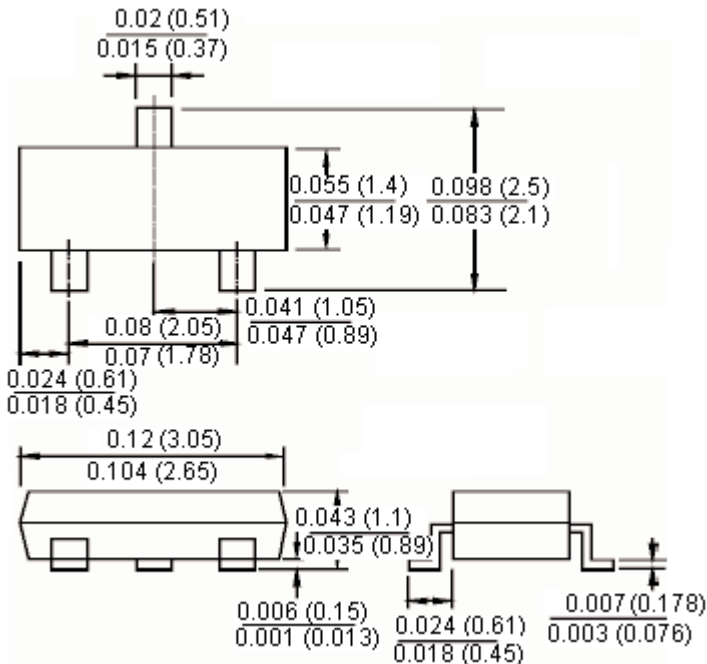
## BA Series



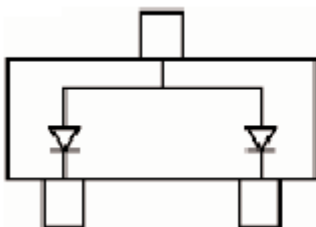
### Features:

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

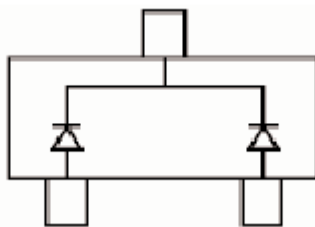
### SOT-23



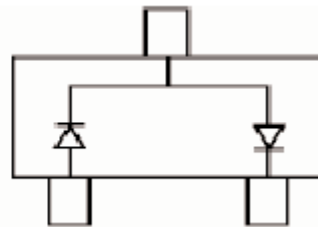
Dimensions : Inches (Millimetres)



BAW56 Marking : A1



BAV70 Marking : A4



BAV99 Marking : A7

# Diodes

## BA Series

### Mechanical Data

Case	: SOT-23, moulded plastic
Terminals	: Solderable per MIL-STD-202, Method 208
Polarity	: See diagram
Marking	: BAW56 : A1, BAV70 : A4, BAV99 : A7
Weight	: 0.008 g (approximately)

### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	BAW56 / BAV70 / BAV99	Units
Reverse Voltage	$V_R$	75	V
Forward Current	$I_F$	200	mA
Peak Forward Surge Current	$I_{FM}$ (surge)	500	
Power Dissipation	$P_D$	225	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	556	$^\circ\text{C} / \text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to 150	

### Electrical Characteristics

Type Number	Symbol	Minimum	Maximum	Units	
Reverse Breakdown Voltage $I_R = 100 \mu\text{A}$	$V_R$	75	-	V	
Forward Voltage $I_F = 1.0 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 150 \text{ mA}$	$V_F$	-	0.715 0.855 1 1.25		
Reverse Current $V_R = 25 \text{ V}$ $V_R = 75 \text{ V}$	$I_R$	-	30 2		nA $\mu\text{A}$
Capacitance Between Terminals $V_R = 0, f = 1 \text{ MHz}$	$C_j$	-	1.5		pF
Reverse Recovery Time (Note 1)	$t_{rr}$	-	6	nS	

**Note 1** : Reverse recovery test conditions :  $I_F = I_R = 10 \text{ mA}$ ,  $I_{rr} = 0.1 \times I_R$ ,  $R_L = 100 \Omega$

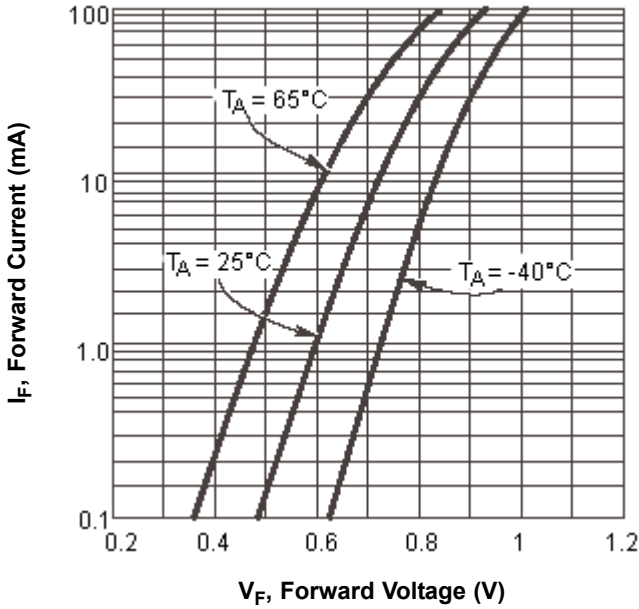
# Diodes

## BA Series

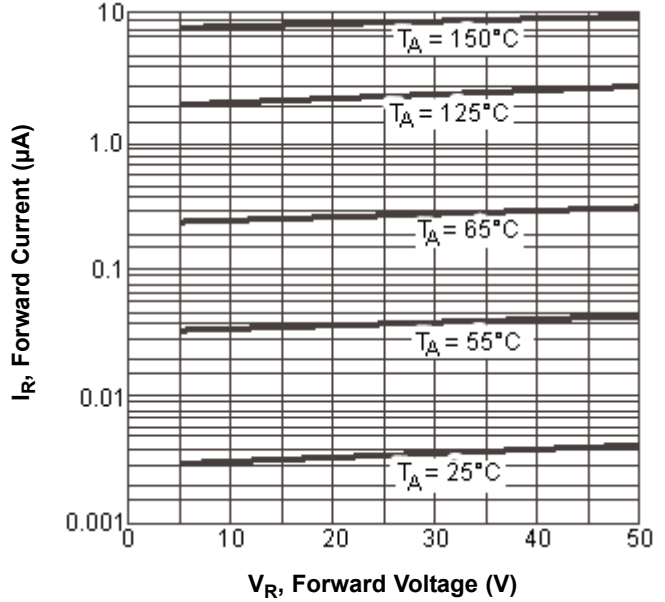


### Ratings and Characteristic Curves (BAW56 / BAV70 / BAV99)

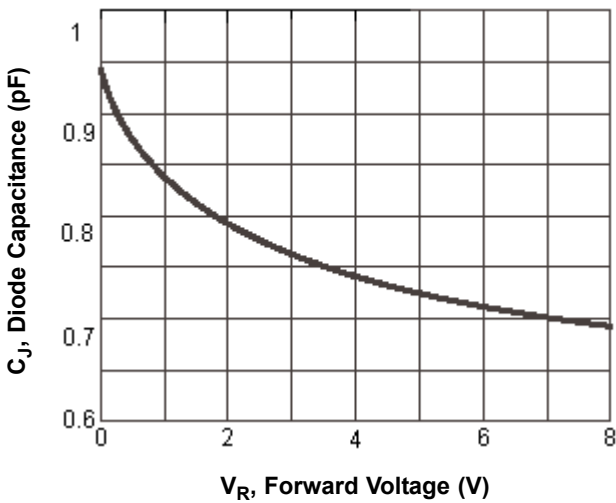
Typical Forward Voltage



Typical Leakage Current



Typical Capacitance



### Part Number Table

Description	Part Number
Diode, Dual, Small Signal, SOT23	BAV70
Diode, Dual, Small Signal, 75 V, SOT23	BAV99
Diode, Small Signal SOT23	BAW56

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

