Diodes

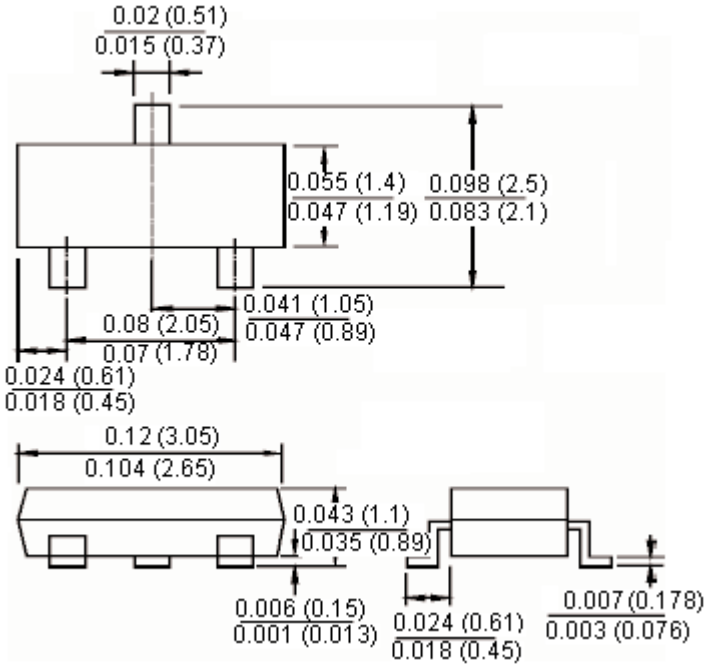
BA Series

RoHS Compliant

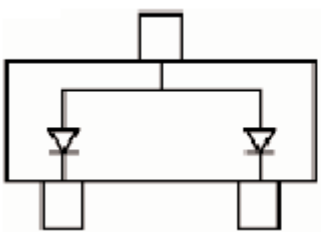
Features:

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

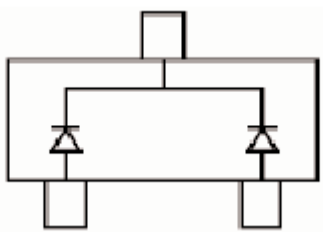
SOT-23



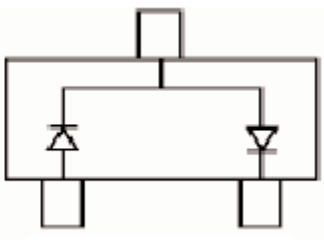
Dimensions : Inches (Millimetres)



BAW56 Marking : A1



BAV70 Marking : A4



BAV99 Marking : A7

Mechanical Data

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

Maximum Ratings T_A = 25°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	°C / W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to 150	

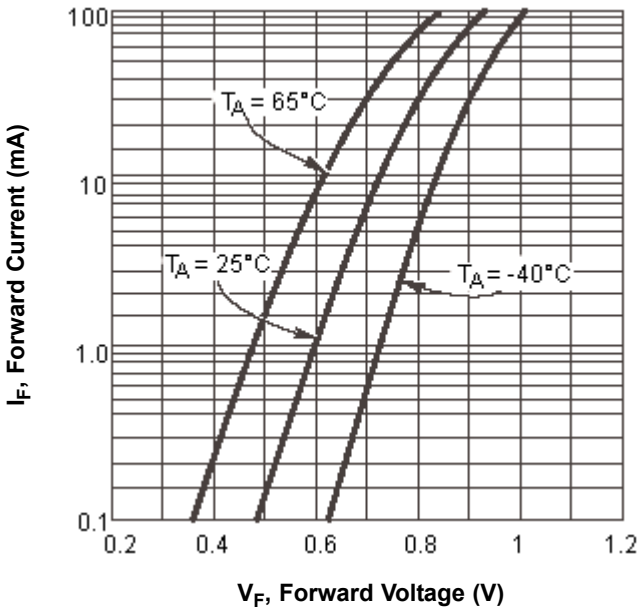
Electrical Characteristics

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

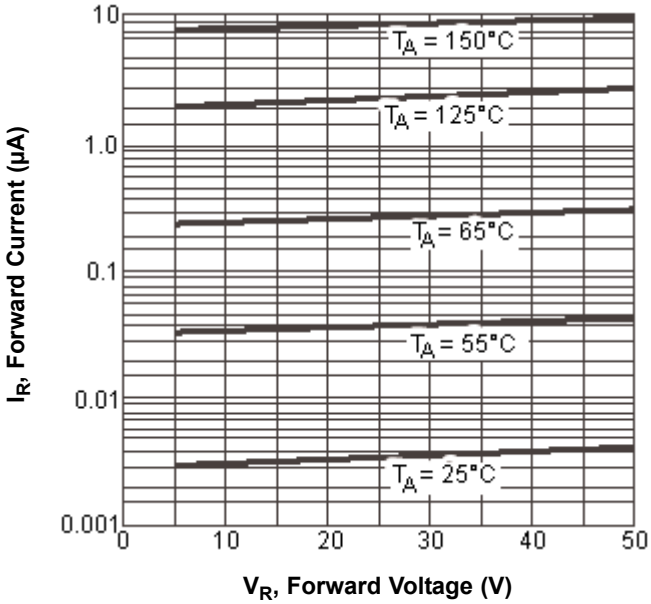
Note 1 : Reverse recovery test conditions : $I_F = I_R$ = 10 mA, $I_{rr} = 0.1 \times I_R$, R_L = 100 Ω

Ratings and Characteristic Curves (BAW56 / BAV70 / BAV99)

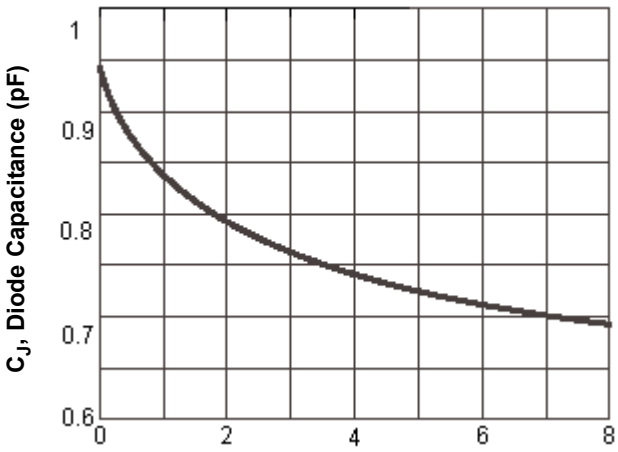
Typical Forward Voltage



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