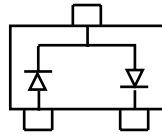
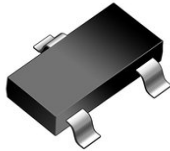
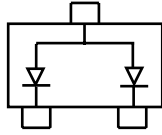
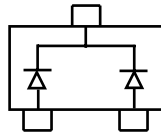


**SOT-23**


BAV99 Marking: A7



BAW56 Marking: A1



BAV70 Marking: A4

**Features**

Fast Switching Speed  
 For general purpose switching applications  
 High Conductance  
 Epitaxial planar die construction  
 Halogen free and RoHS compliant

**Mechanical Data**

SOT-23 Small Outline Plastic Package  
 EpoxyUL:94V-0

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7" reel	3000	EIA-481-1

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Limits	Unit
Reverse voltage	$V_R$	70	V
Forward Current	$I_F$	200	mA
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
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	$T_{STG}$	-55-150	°C

**Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_R$	70			V	$I_R=100\mu A$
Forward voltage	$V_{F1}$			0.715	V	$I_F=1mA$
	$V_{F2}$			0.855	V	$I_F=10mA$
	$V_{F3}$			1	V	$I_F=50mA$
	$V_{F4}$			1.25	V	$I_F=150mA$
Reverse current	$I_R$			2.5	$\mu A$	$V_R=70V$
Capacitance between terminals	$C_T$			1.5	pF	$V_R=0, f=1MHz$
Reverse recovery time	$t_{rr}$			6	ns	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

## Ratings and Characteristic Curves

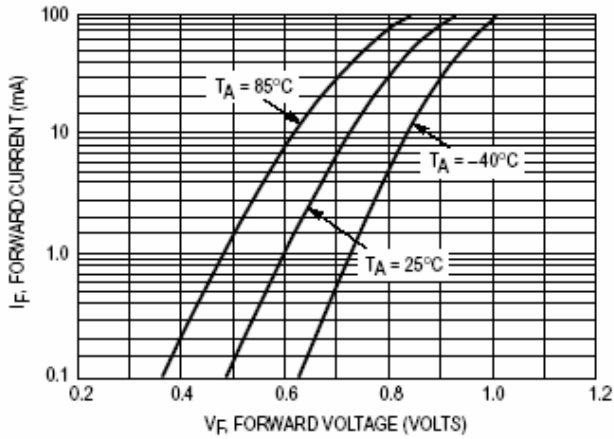


Figure 1 Forward Voltage

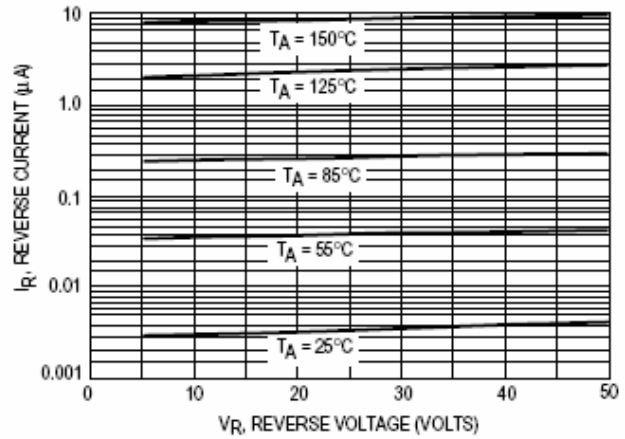


Figure 2 Leakage Current

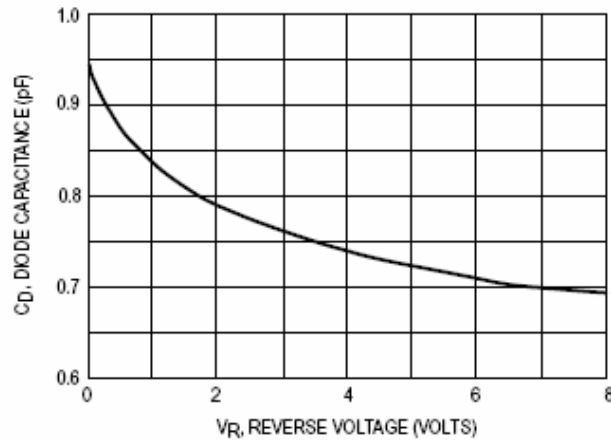
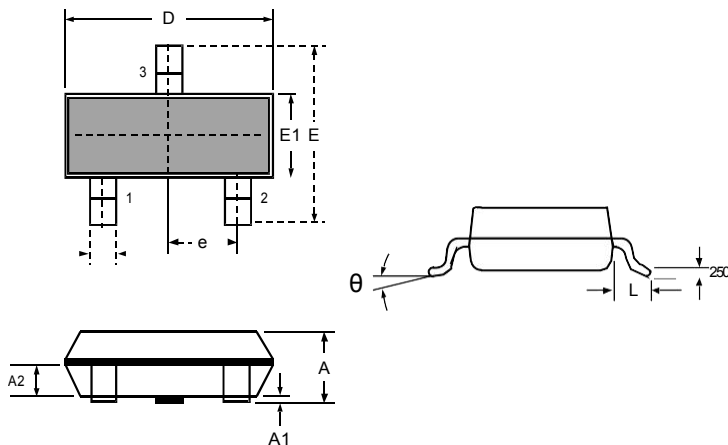


Figure 3 Capacitance

## Package Outline Dimensions: SOT-23



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
$\theta$	0	$8^\circ$	0	$8^\circ$