**Features** 

Fast Switching Speed

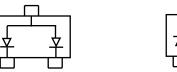
High Conductance



## **SOT-23**











For General Purpose Switching Applications

BAW56 Marking: A1

BAV70 Marking: A4

BAV99 Marking: A7

## **Maximum Ratings & Thermal Characteristics**

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

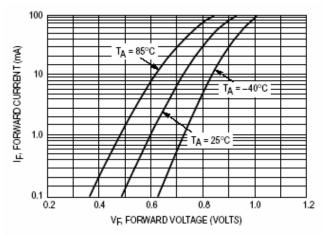
Parameter	Symbol	Limits	Unit
Reverse voltage	V <sub>R</sub>	70	V
Forward Current	I <sub>F</sub>	200	mA
Peak Forward Surge Current	I <sub>FM(surge)</sub>	500	mA
Power Dissipation	P <sub>D</sub>	225	mW
Thermal Resistance Junction to Ambient Air	$R_{ heta JA}$	556	°C/W
Junction temperature	TJ	150	℃
Storage temperature range	T <sub>STG</sub>	-55-150	℃

## **Electrical Characteristics**

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V <sub>R</sub>	70			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F1</sub>			0.715	V	I <sub>F</sub> =1mA
	V <sub>F2</sub>			0.855	V	I <sub>F</sub> =10mA
	V <sub>F3</sub>			1	V	I <sub>F</sub> =50mA
	$V_{F4}$			1.25	V	I <sub>F</sub> =150mA
Reverse current	I <sub>R</sub>			2.5	μΑ	V <sub>R</sub> =70V
Capacitance between terminals	C <sub>T</sub>			1.5	pF	V <sub>R</sub> =0,f=1MHz
Reverse recovery time	trr			6	ns	$I_F = I_R = 10$ mA,
						Irr= $0.1 \times I_R$ , $R_L = 100\Omega$





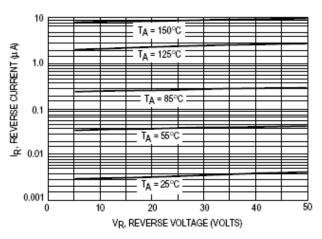


Figure 1. Forward Voltage

Figure 2 Leakage Current

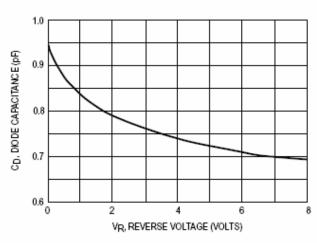
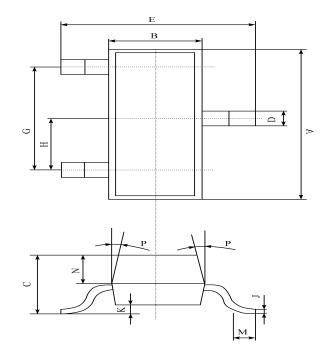


Figure 3 Capacitance

SOT-23 PACKAGE OUTLINE Plastic surface mounted package



SOT-23		
Α	$2.90 \pm 0.10$	
В	$1.30 \pm 0.10$	
С	$1.00 \pm 0.10$	
D	$0.40 \pm 0.10$	
Е	$2.40 \pm 0.20$	
G	$1.90 \pm 0.10$	
Н	$0.95 \pm 0.05$	
J	$0.13 \pm 0.05$	
K	0.00-0.10	
М	≥0.2	
Z	$0.60 \pm 0.10$	
P	7 ± 2 °	

(UNIT): mm

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