



# BAS40/A/C/S

## SURFACE MOUNT SCHOTTKY DIODES

**VOLTAGE** 40 Volts **CURRENT** 0.2 Amperes

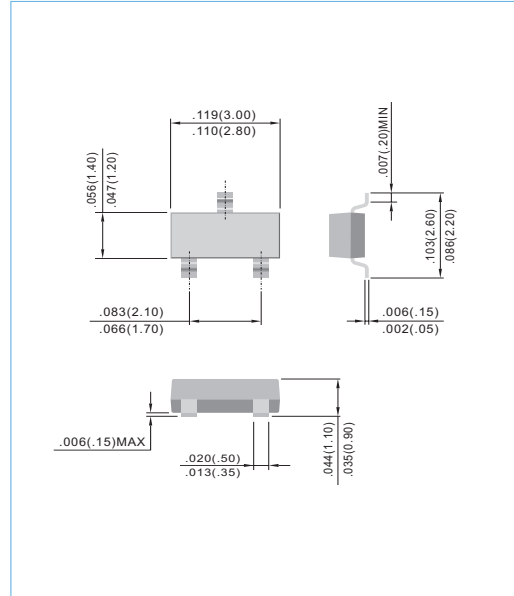
**SOT-23** Unit: inch (mm)

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion  
Electrical identical standard JEDEC
- High conductor
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.008 gram

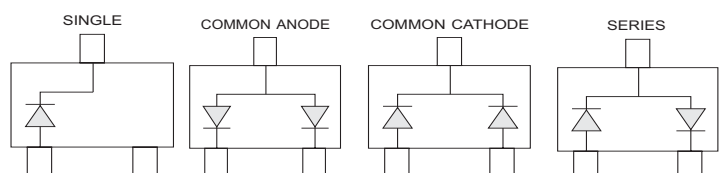


### ABSOLUTE RATINGS

PARAMETER	Symbol	BAS40	BAS40A	BAS40C	BAS40S	Units
Marking Code		S40	S42	S43	S44	
Reverse Voltage	$V_R$	40				V
Peak Reverse Voltage	$V_{RRM}$	40				V
Average Rectified Current at Temp=25°C	$I_{F(AV)}$	0.2				A
Non-repetitive Peak Forward Surge Current at t=1.0 s	$I_{FSM}$	0.6				A

### THERMAL CHARACTERISTICS

PARAMETER	Symbol	BAS40	BAS40A	BAS40C	BAS40S	Units
Power Dissipation	$P_{TOT}$	225				mW
Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	556				°C/W
Junction Temperature	$T_J$	150				°C
Storage Temperature at Temp=25°C	$T_{STG}$	-55 to 150				°C
Circuit Figure		SINGLE	COMMON ANODE	COMMON CATHODE	SERIES	





# BAS40/A/C/S

## ELECTRICAL CHARACTERISTICS

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10 \mu A$	40	--	--	V
Reverse Current	$I_R$	$V_R=30 V$ $V_R=40 V$	--	--	1.0 10	$\mu A$
Forward Voltage	$V_F$	$I_F=1.0mA$ $I_F=10mA$ $I_F=40mA$	--	--	0.38 0.50 1.00	V
Total Capacitance	$C_T$	$V_R=0V, f=1.0MHz$	--	--	5.0	pF

## ELECTRICAL CHARACTERISTICS CURVE

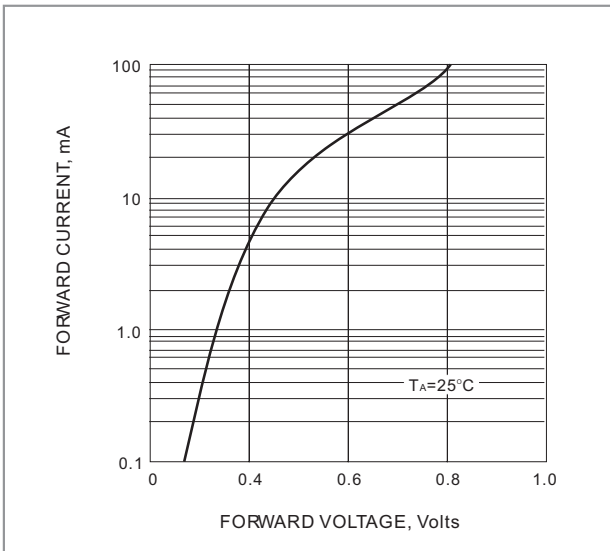


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

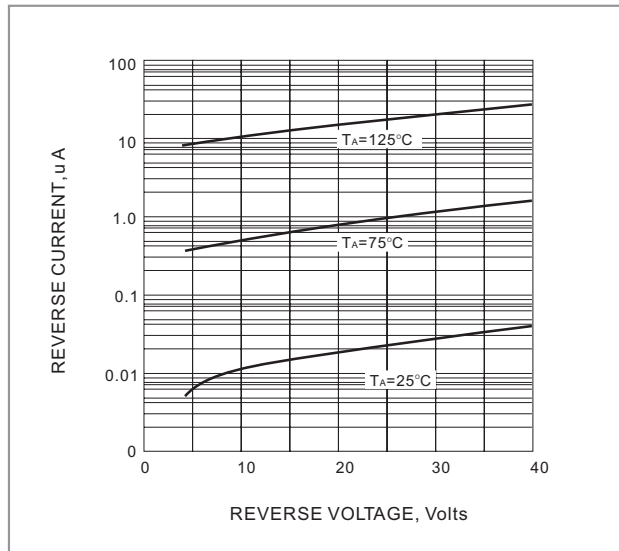


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

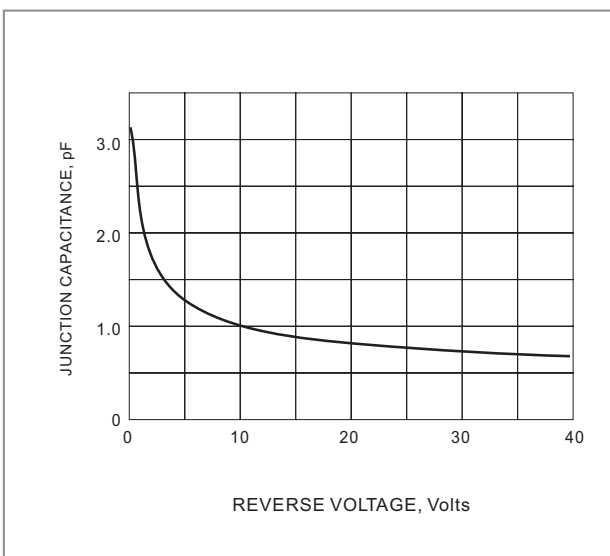


FIG. 3 TYPICAL JUNCTION CAPACITANCE

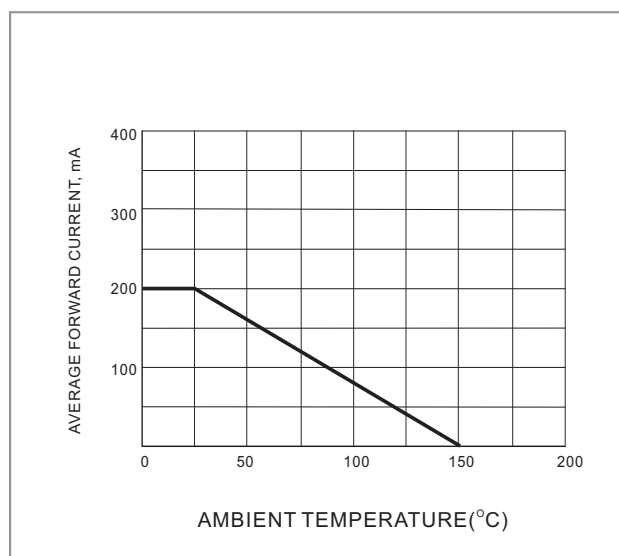
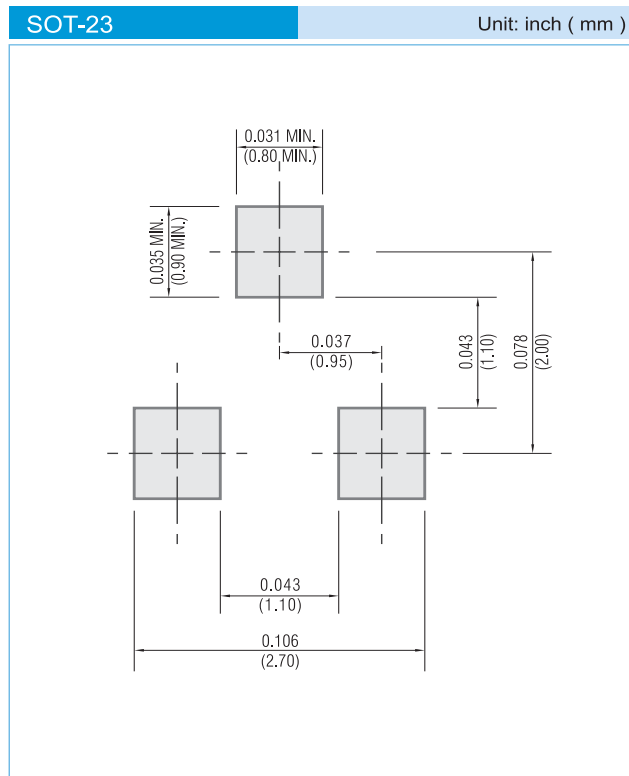


FIG. 4 FORWARD CURRENT DERATING



# BAS40/A/C/S

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## LEGAL STATEMENT

### Copyright PanJit International, Inc 2006

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.