



**THE DATASHEET OF  
BAS40\_R1\_00001**





# BAS40 SERIES

## SURFACE MOUNT SCHOTTKY DIODES

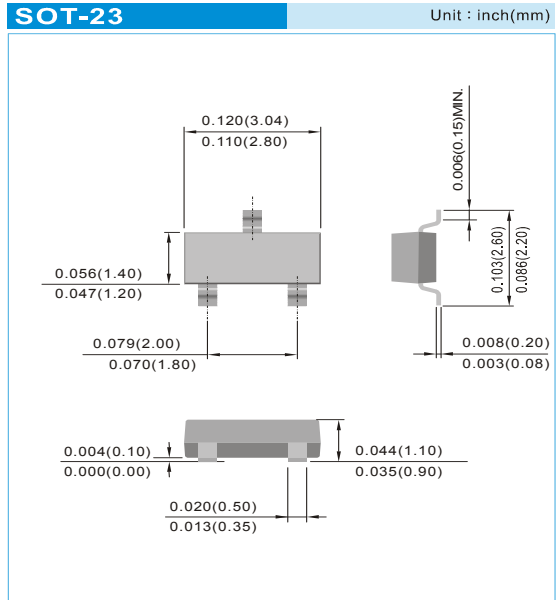
**VOLTAGE** 40 Volt **CURRENT** 0.2 Ampere

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion  
Electrical identical standard JEDEC
- High conductor
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams

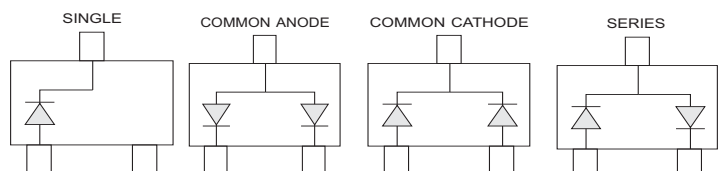


### ABSOLUTE RATINGS

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	$T_J$	-55 to 150				°C
Storage Temperature at Temp=25°C	$T_{STG}$	-55 to 150				°C
Circuit Figure		SINGLE	COMMON ANODE	COMMON CATHODE	SERIES	





# BAS40 SERIES

## ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10 \mu A$	40	--	--	V
Reverse Current	$I_R$	$V_R=25 V$	--	--	1.0	$\mu A$
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



# BAS40 SERIES

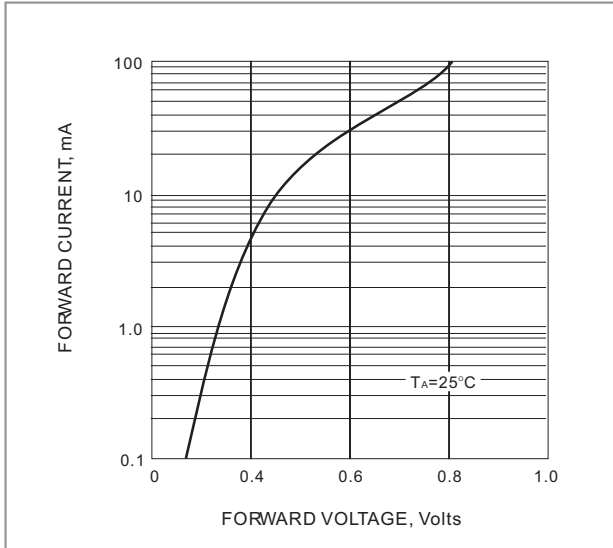


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

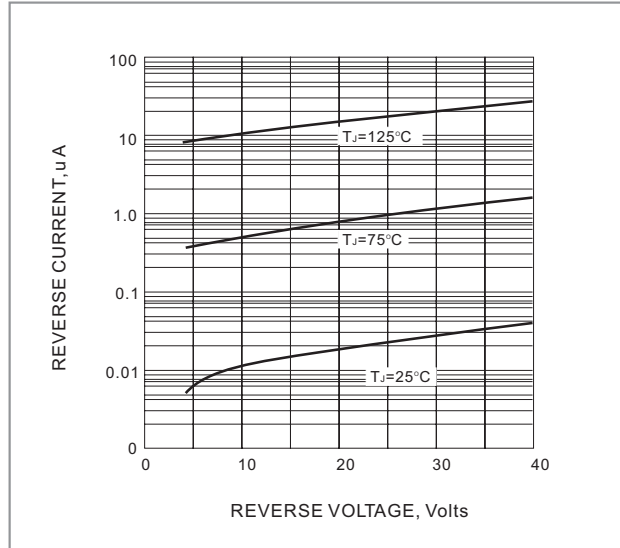


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

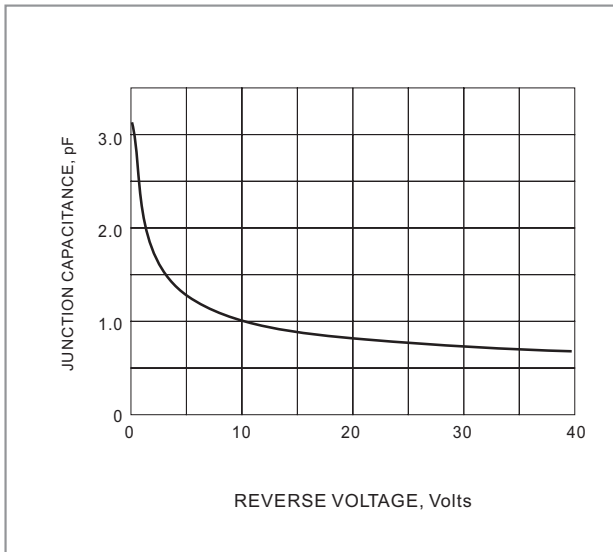


FIG. 3 TYPICAL JUNCTION CAPACITANCE

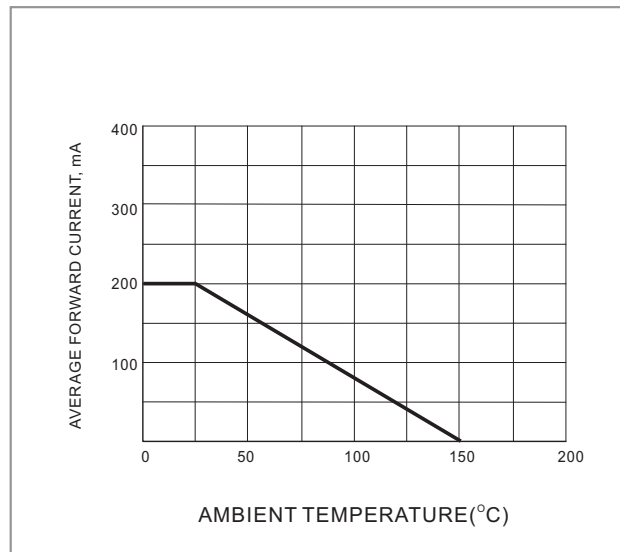


FIG. 4 FORWARD CURRENT DERATING

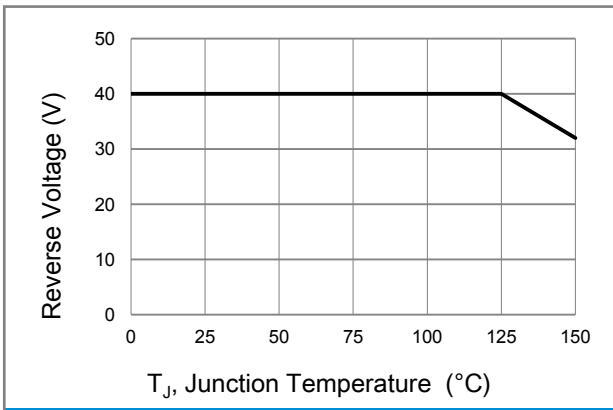


Fig.5 Operating Temperature Derating Curve

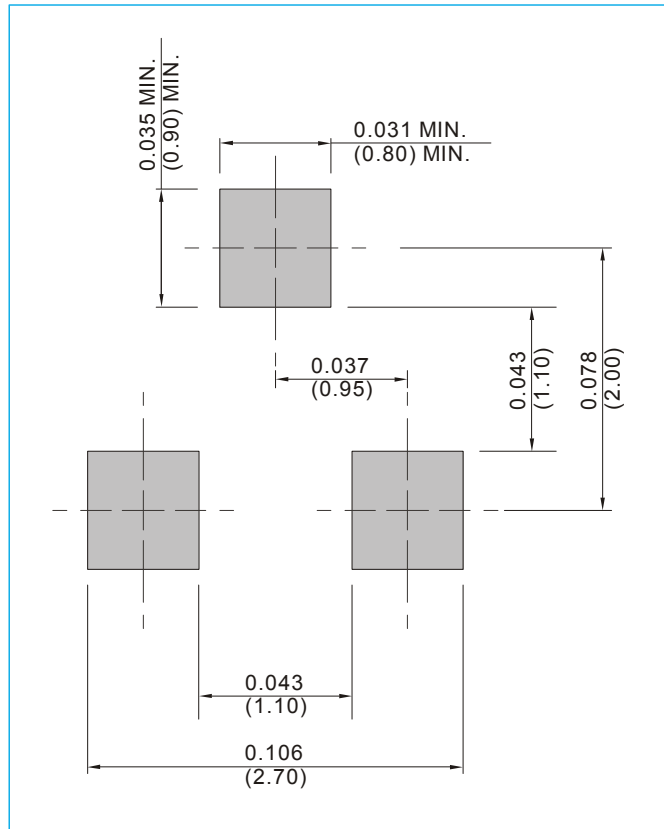


# BAS40 SERIES

## MOUNTING PAD LAYOUT

**SOT-23**

Unit : inch(mm)



## ORDER INFORMATION

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



# BAS40 SERIES

## Part No.\_packing code\_Version

BAS40\_R1\_00001

BAS40\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## BAS40 SERIES


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