

DATA SHEET

BAS40W/AW/CW/SW

SURFACE MOUNT SCHOTTKY DIODES

VOLTAGE 40 Volts **CURRENT** 0.2 Amperes

SOT-323

Unit: inch (mm)

FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
Electrical identical standard JEDEC
- High conductor
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

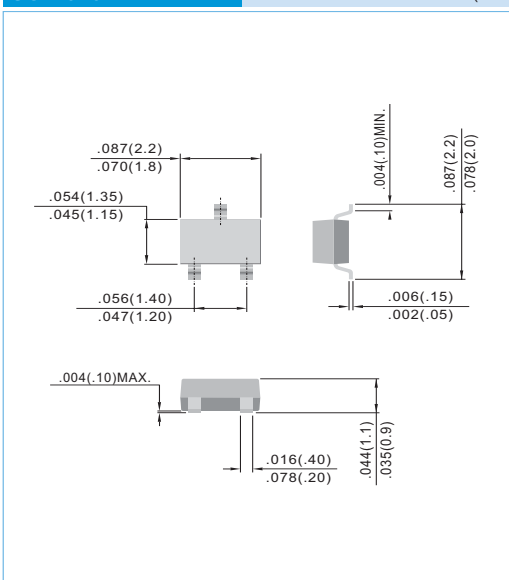
MECHANICAL DATA

Case: SOT-323, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.0052 gram

Marking: S40,S42,S43,S44

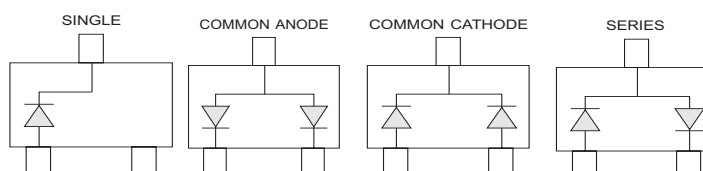


ABSOLUTE RATINGS

PARAMETER	Symbol	BAS40W	BAS40AW	BAS40CW	BAS40SW	Units
Reverse Voltage	V_R	40				V
Peak Reverse Voltage	V_{RRM}	40				V
Average Rectified Current at $T_{amb}=25^{\circ}C$	I_O	0.2				A
Non-repetitive Peak Forward Surge Current at $t=1.0s$	I_{FSM}	0.6				A

THERMAL CHARACTERISTICS

PARAMETER	Symbol	BAS40W	BAS40AW	BAS40CW	BAS40SW	Units
Power Dissipation	P_{TOT}	225				mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556				$^{\circ}C/W$
Junction Temperature	T_J	150				$^{\circ}C$
Storage Temperature at $T_{amb}=25^{\circ}C$	T_{STG}	-55 to 150				$^{\circ}C$
Circuit Figure		SINGLE	COMMON ANODE	COMMON CATHODE	SERIES	



ELECTRICAL CHARACTERISTICS

PARAMETER	Symbol	Test Condition	M N .	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	μA
Forward Voltage	V_F	$I_F=1.0 mA$ $I_F=10 mA$ $I_F=40 mA$	—	—	0.38 0.50 1.00	V
Total Capacitance	C_T	$V_R=0 V, f=1.0 MHz$	—	—	5.0	pF

ELECTRICAL CHARACTERISTICS CURVE

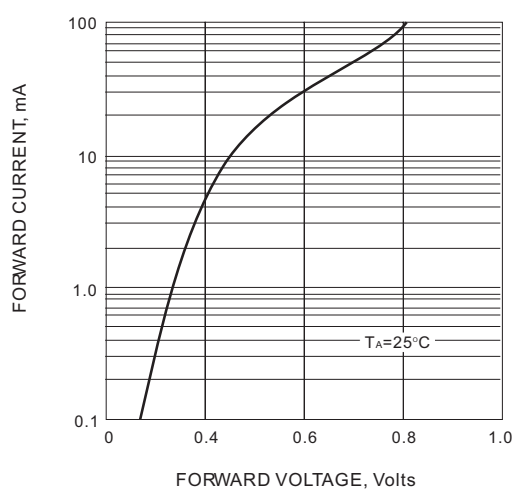


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

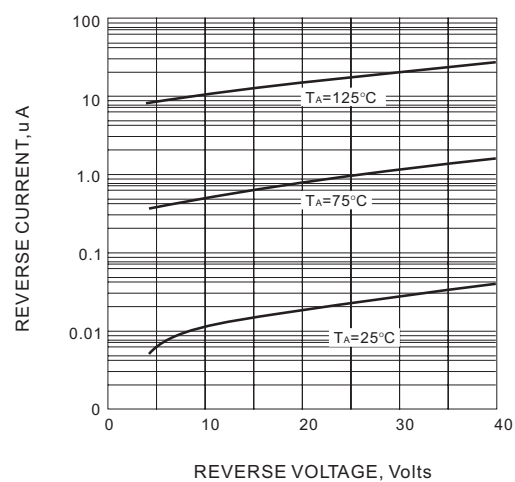


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

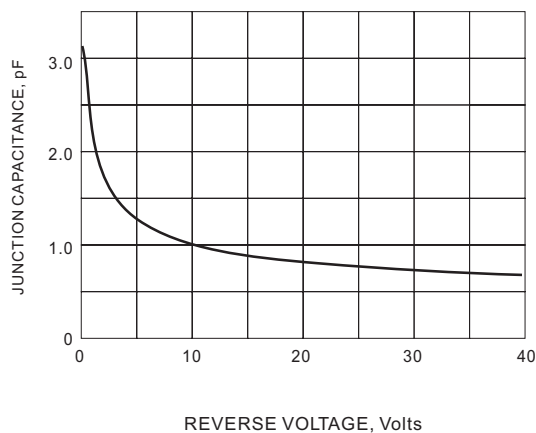


FIG. 3 TYPICAL JUNCTION CAPACITANCE

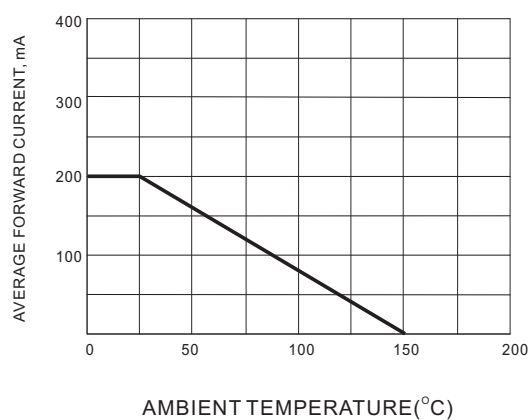
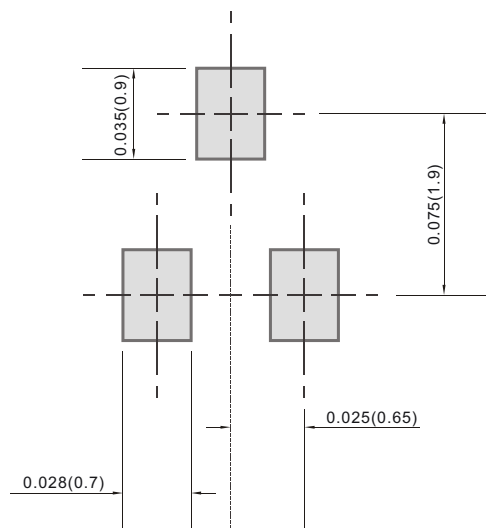


FIG. 4 FORWARD CURRENT DERATING

MOUNTING PAD LAYOUT

SOT-323

Unit: inch (mm)



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 3.0K per 7" plastic Reel

LEGAL STATEMENT

IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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