

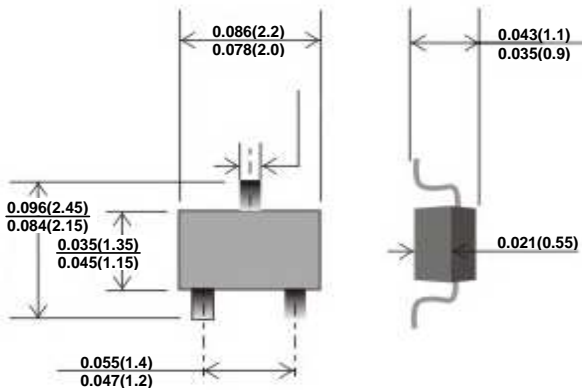


# BAS40W SERIES

## SURFACE MOUNT SCHOTTKY DIODES

Reverse Voltage - 40 Volts Forward Current - 0.2 Ampere

### SOT-323



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Fast switching speed
- ◆ Surface mount package Ideally suited for automatic insertion
- ◆ Electrically identical to standard JEDEC
- ◆ High Conductance
- ◆ Lead free in comply with EU RoHS 2002/95/EC directives.
- ◆ Green molding compound as per IEC61249 Std..(Halogen Free)

### MECHANICAL DATA

**Case:** JEDEC SOT-323, Molded plastic

**Terminals:** Solderable per MIL-STD-750 · Method 2026

**Approx. Weight:** 0.0002 ounces, 0.005 grams

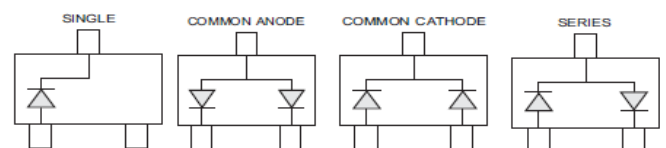
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	BAS40W	BAS40AW	BAS40CW	BAS40SW	UNITS
Marking Code		S40	S42	S43	S44	Volts
Reverse Voltage	$V_R$	40				Volts
Peak Reverse Voltage	$V_{RRM}$	40				Volts
Minimum Reverse Breakdown Voltage	$V_{BR}$	40				Volts
Average Rectified Current at Temp =25 °C	$I_{F(av.)}$	0.2				mA
Non-repetitive Peak Forward Surge Current, at t=1.0s	$I_{FSM}$	0.6				Amps
Power Dissipation Derate Above 25°C	$P_{TOT}$	225				mW
Maximum Forward Voltage	$V_F$	0.38V @ $I_F=1.0$ mA 0.50V @ $I_F= 10$ mA 1.00V @ $I_F= 40$ mA				Volts
Maximum Reverse Current at 25V	$I_R$	1.0				μA
Typical Junction Capacitance (Notes 1)	$C_J$	5.0				pF
Typical Thermal Resistance	$R_{\theta JA}$	556				°C/W
Junction Temperature and Storage Temperature Range	$T_{STG}$	-55 ~ +150				°C
Circuit Figure		Single	Common Anode	Common Cathode	Series	

**Note:** 1.  $C_J$  at Reverse Voltage = 0V, f=1MHz





# BAS40W SERIES

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- TYPICAL FORWARD CHARACTERISTICS

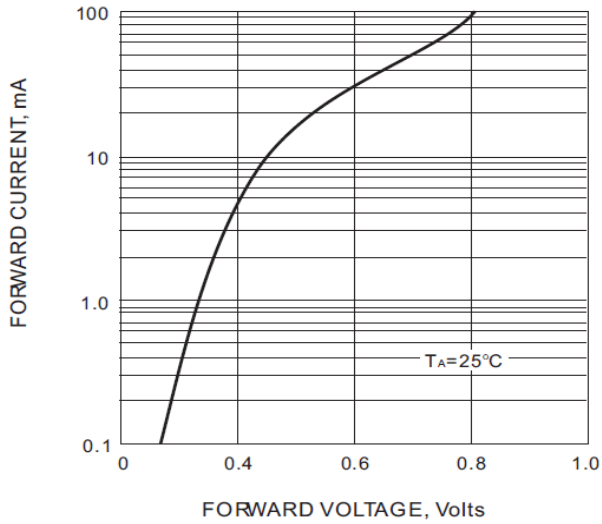


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

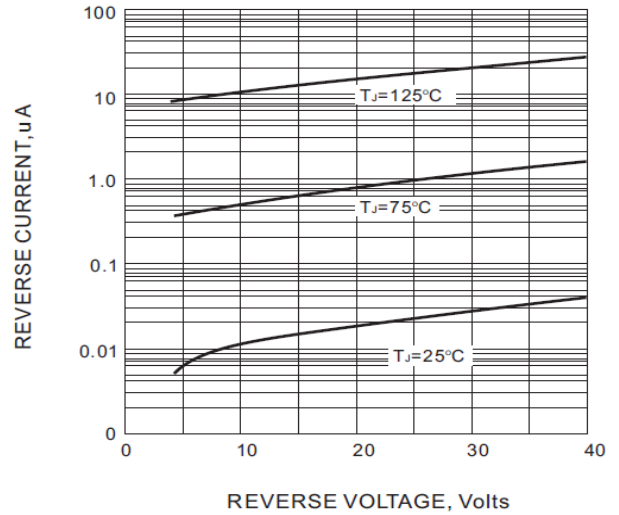


FIG. 3-TYPICAL JUNCTION CAPACITANCE

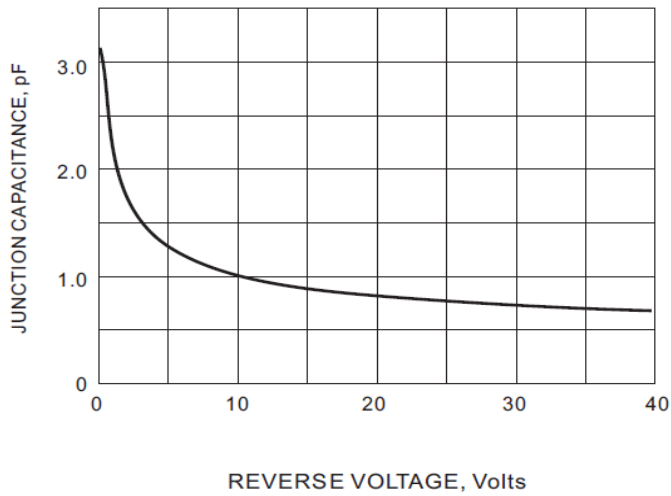
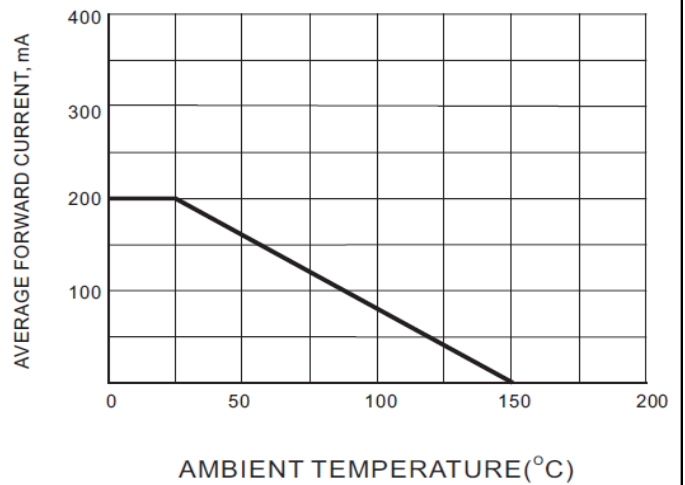


FIG. 4-POWER DERATING CURVE



MOUNTING PAD LAYOUT

Unit: Inch(mm)

