



DATA SHEET

BAS70W/AW/CW/SW

SURFACE MOUNT SCHOTTKY DIODES

VOLTAGE 70 Volts **CURRENT** 0.2 Amperes

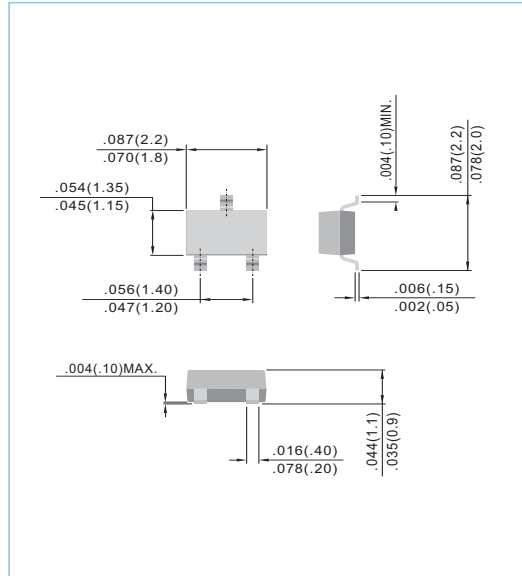
SOT-323 Unit: inch (mm)

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: A70,A72,A73,A74

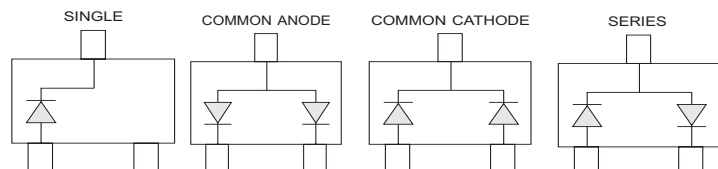


ABSOLUTE RATINGS

| PARAMETER | Symbol | Value | Units |
|--|-----------|-------|-------|
| Reverse Voltage | V_R | 70 | V |
| Peak Reverse Voltage | V_{RRM} | 70 | V |
| Average Rectified Current at Temp=25°C | I_o | 0.2 | A |
| Non-repetitive Peak Forward Surge Current at t=1.0 s | I_{FSM} | 0.6 | A |

THERMAL CHARACTERISTICS

| PARAMETER | Symbol | BAS70W | BAS70AW | BAS70CW | BAS70SW | 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 | |





ELECTRICAL CHARACTERISTICS

| PARAMETER | Symbol | Test Condition | MIN. | TYP. | MAX. | Units |
|------------------------------|----------|--|------|------|----------------------|---------|
| Reverse Breakdown Voltage | V_{BR} | $I_E=10 \mu A$ | 70 | — | — | V |
| Reverse Current | I_R | $V_R=70 V$ $V_R=50 V$ | — | — | 1.0 0.1 | μA |
| Forward Voltage | V_F | $I_F=1.0 mA$ $I_F=10 mA$ $I_F=15 mA$ | — | — | 0.41 0.75 1.00 | V |
| Maximum Junction Capacitance | C_J | $V_R=0V, f=1.0 MHz$ | — | — | 2.0 | pF |

ELECTRICAL CHARACTERISTICS CURVE

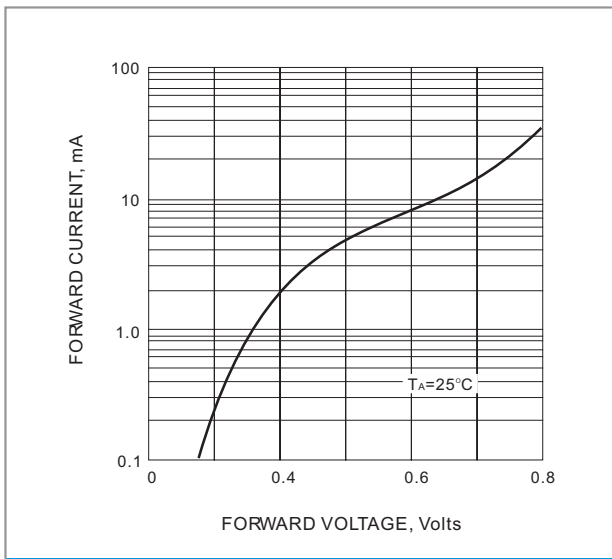


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

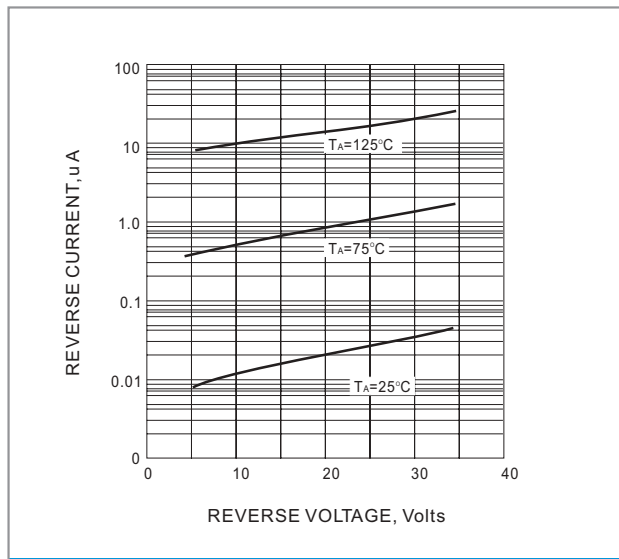


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

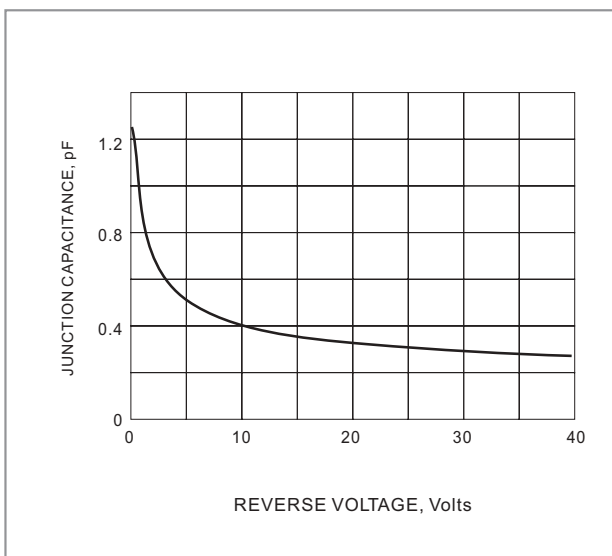


FIG. 3 TYPICAL JUNCTION CAPACITANCE

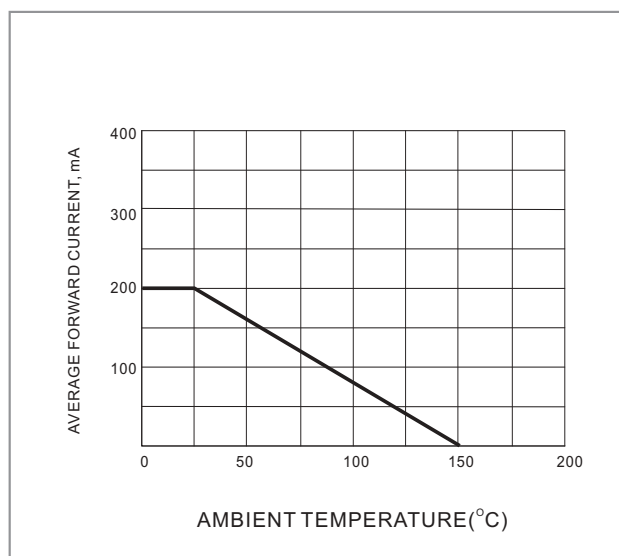


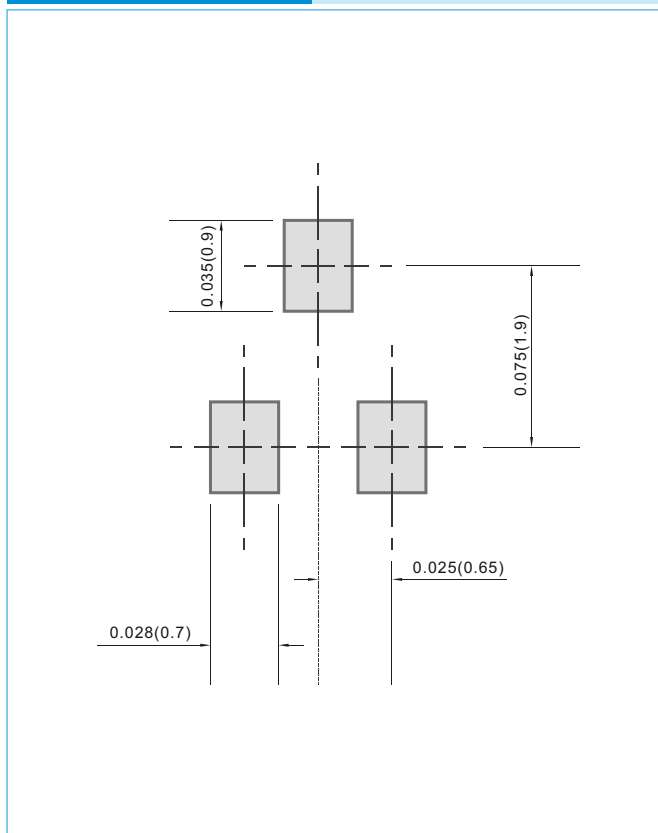
FIG. 4 FORWARD CURRENT DERATING



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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