

# BAS40/A/C/S

## SURFACE MOUNT SCHOTTKY DIODES

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

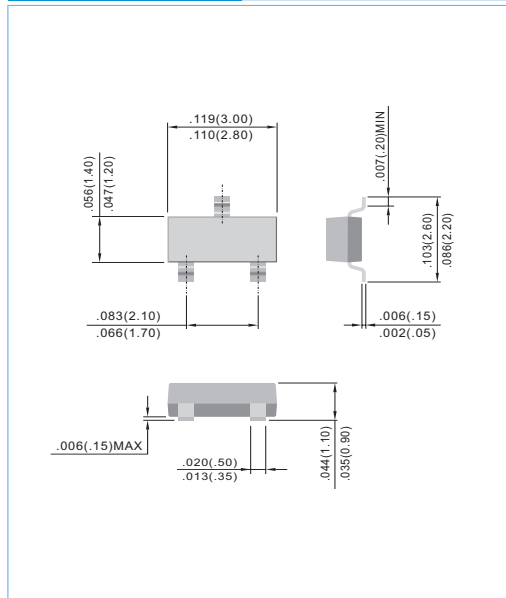
**SOT-23** Unit: inch (mm)

### 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

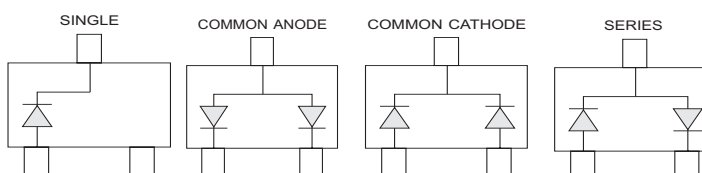


### ABSOLUTE RATINGS

| 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 |       |



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## ELECTRICAL CHARACTERISTICS

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

## ELECTRICAL CHARACTERISTICS CURVE

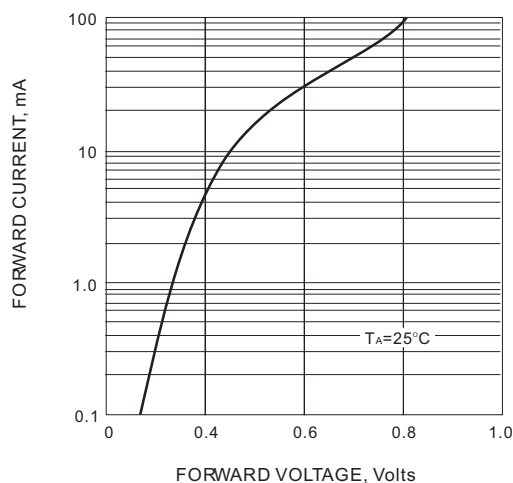


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

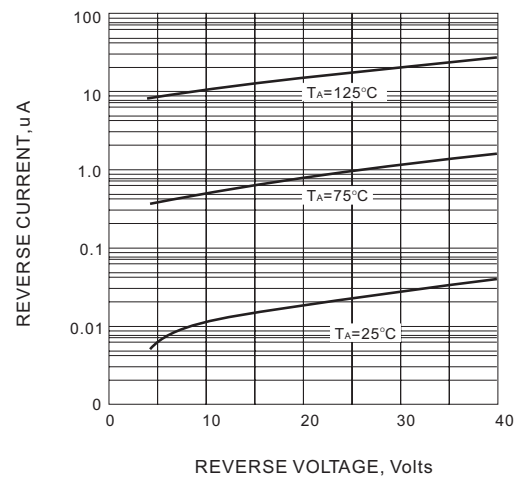


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

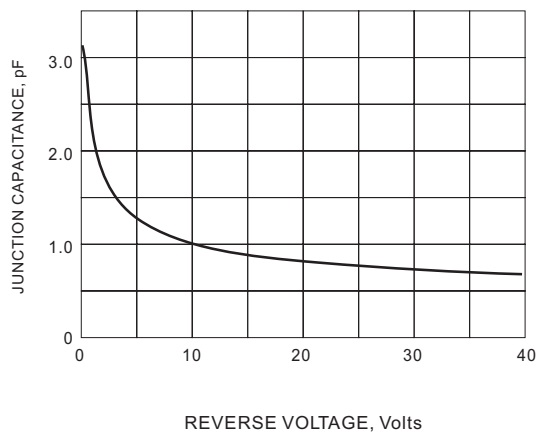


FIG. 3 TYPICAL JUNCTION CAPACITANCE

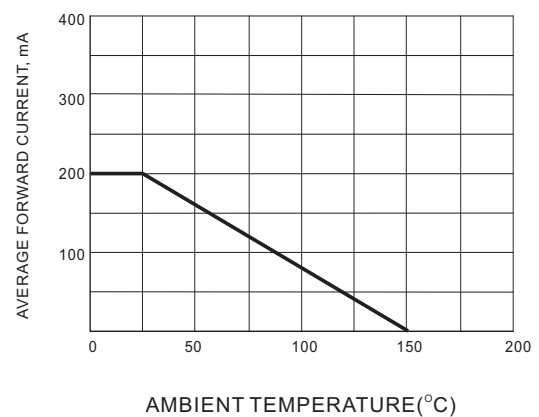
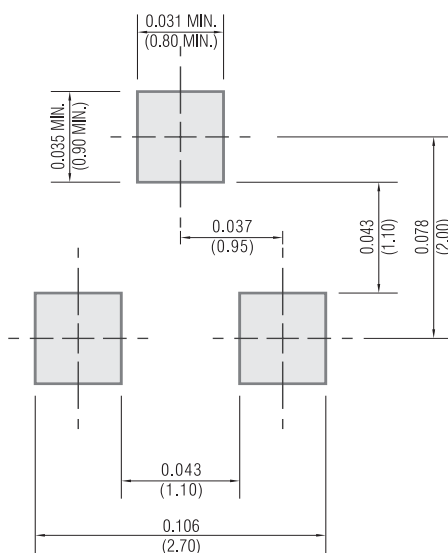


FIG. 4 FORWARD CURRENT DERATING

## MOUNTING PAD LAYOUT

Unit: inch ( mm )



- Packing information

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

## LEGAL STATEMENT

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