

# BAS40TS

## SURFACE MOUNT SCHOTTKY DIODES

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

### FEATURES

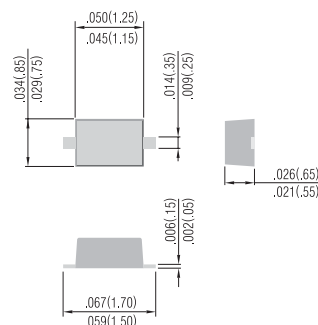
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight : 0.0014 gram
- Marking : 40

SOD-523

Unit: inch (mm)



### ABSOLUTE RATINGS (T<sub>A</sub>=25°C , unless otherwise noted)

| PARAMETER                                             | Symbol           | Value      | Unit |
|-------------------------------------------------------|------------------|------------|------|
| Peak Reverse Voltage                                  | V <sub>RRM</sub> | 40         | V    |
| Average Rectified Current at T <sub>A</sub> =25°C     | I <sub>O</sub>   | 0.2        | A    |
| Non-repetitive Peak Forward Surge Current at t=8.3m s | I <sub>FSM</sub> | 500        | mA   |
| Power Dissipation                                     | P <sub>TOT</sub> | 200        | mW   |
| Junction Temperature                                  | T <sub>J</sub>   | 125        | °C   |
| Storage Temperature Range                             | T <sub>STG</sub> | -40 to 125 | °C   |

### THERMAL CHARACTERISTICS

| PARAMETER                                | Symbol           | Value | Unit |
|------------------------------------------|------------------|-------|------|
| Thermal Resistance , Junction to Ambient | R <sub>θJA</sub> | 635   | °C/W |

## BAS40TS

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ , unless otherwise noted)

| PARAMETER                 | Symbol     | Test Condition                                                   | MIN. | MAX.               | Units         |
|---------------------------|------------|------------------------------------------------------------------|------|--------------------|---------------|
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R = 10\mu\text{A}$                                            | 40   | -                  | V             |
| Reverse Current           | $I_R$      | $V_R = 25\text{V}$                                               | -    | 1.0                | $\mu\text{A}$ |
| Forward Voltage           | $V_F$      | $I_F = 1\text{mA}$<br>$I_F = 10\text{mA}$<br>$I_F = 40\text{mA}$ | -    | 0.38<br>0.5<br>1.0 | V             |
| Total Capacitance         | $C_T$      | $V_R = 0\text{V}, f = 1\text{MHz}$                               | -    | 5                  | pF            |

### ELECTRICAL CHARACTERISTICS CURVE

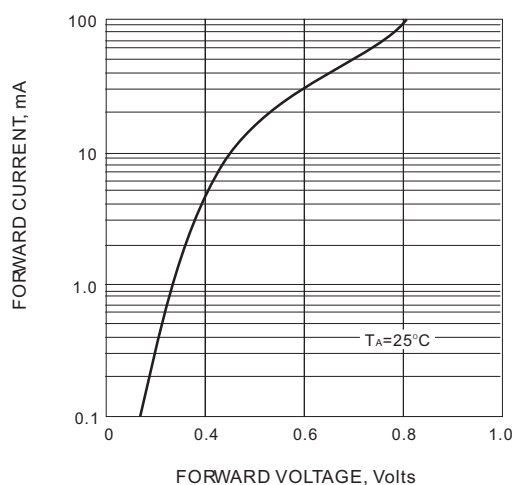


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

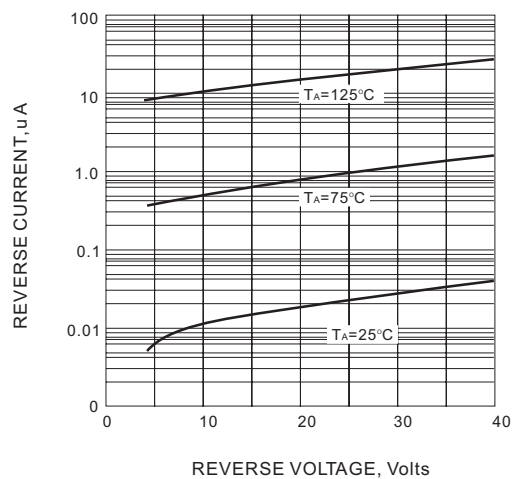


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

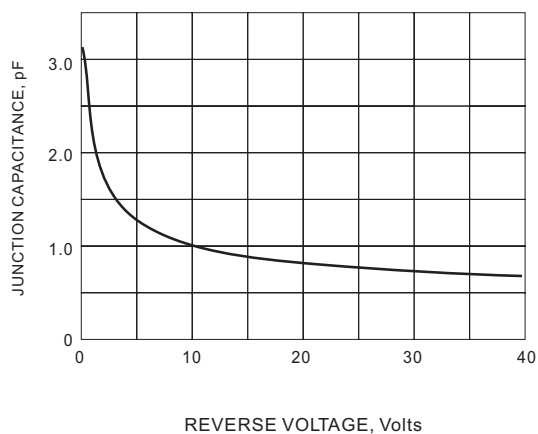


FIG. 3 TYPICAL JUNCTION CAPACITANCE

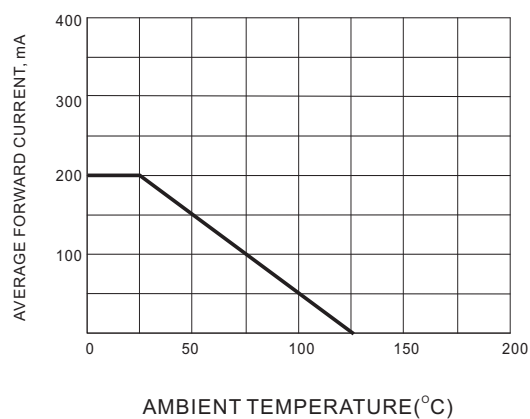


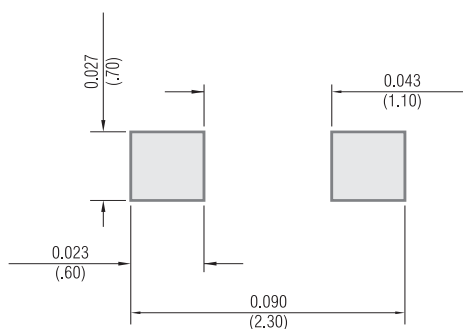
FIG. 4 FORWARD CURRENT DERATING

## BAS40TS

### MOUNTING PAD LAYOUT

SOD-523

Unit: inch ( mm )



### ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

### LEGAL STATEMENT

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