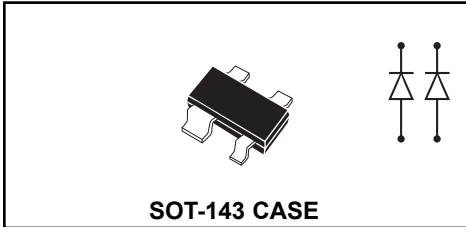


BAS56

**DUAL, ISOLATED HIGH CURRENT
SILICON SWITCHING DIODES**



CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BAS56 consists of two electrically isolated ultra-high speed silicon switching diodes manufactured by the epitaxial planar process and packaged in an epoxy molded surface mount SOT-143 case. This device is designed for high speed switching applications.

MARKING CODE: L51

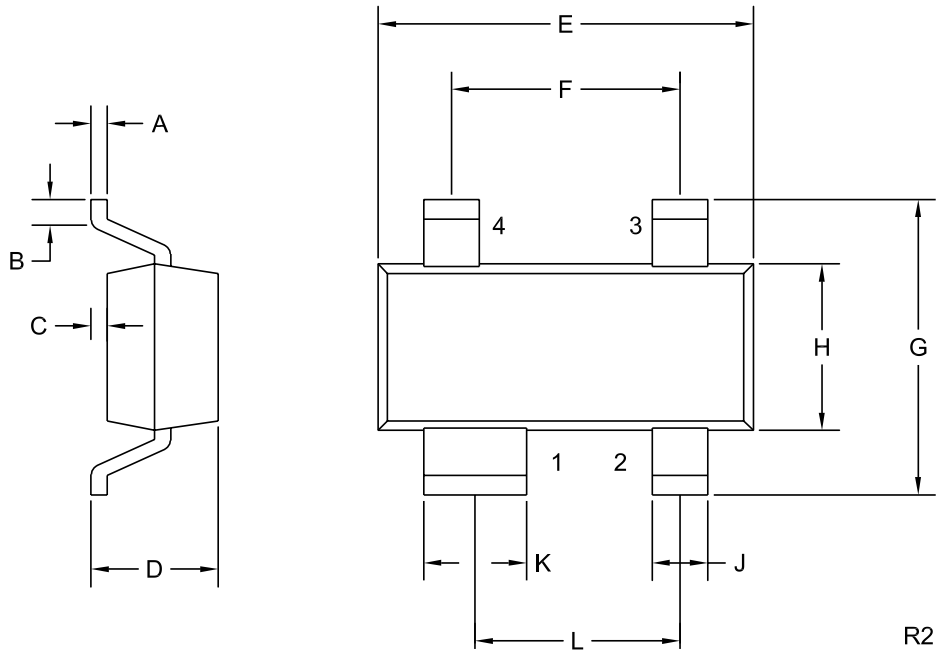
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

| | SYMBOL | | UNITS |
|--|----------------|-------------|--------------------|
| Continuous Reverse Voltage | V_R | 60 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 60 | V |
| Continuous Forward Current | I_F | 200 | mA |
| Peak Repetitive Forward Current | I_{FRM} | 400 | mA |
| Forward Surge Current, $t_p=1 \mu\text{s}$ | I_{FSM} | 4.0 | A |
| Forward Surge Current, $t_p=1 \text{s}$ | I_{FSM} | 1.0 | A |
| Power Dissipation | P_D | 350 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JA} | 357 | $^\circ\text{C/W}$ |

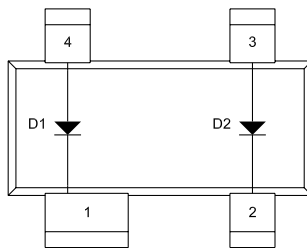
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|--|-----|------|---------------|
| I_R | $V_R=60\text{V}$ | | 100 | nA |
| I_R | $V_R=60\text{V}, T_A=150^\circ\text{C}$ | | 100 | μA |
| I_R | $V_R=75\text{V}$ | | 10 | μA |
| V_F | $I_F=10\text{mA}$ | | 0.75 | V |
| V_F | $I_F=200\text{mA}$ | | 1.0 | V |
| V_F | $I_F=500\text{mA}$ | | 1.25 | V |
| C_T | $V_R=0, f=1.0 \text{MHz}$ | | 2.5 | pF |
| t_{rr} | $I_F=I_R=400\text{mA}, R_L=100\Omega, \text{Rec. to } 40\text{mA}$ | | 6.0 | ns |
| Q_s | $I_F=10\text{mA}, V_R=5.0\text{V}, R_L=500\Omega$ | | 50 | pC |
| V_{FR} | $I_F=400\text{mA}, t_r=30\text{ns}$ | | 1.2 | V |
| V_{FR} | $I_F=400\text{mA}, t_r=100\text{ns}$ | | 1.5 | V |

SOT-143 CASE - MECHANICAL OUTLINE



R2



LEAD CODE:

- 1) CATHODE D1
- 2) CATHODE D2
- 3) ANODE D2
- 4) ANODE D1

MARKING CODE: L51

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.003 | 0.006 | 0.08 | 0.15 |
| B | 0.006 | - | 0.15 | - |
| C | - | 0.005 | - | 0.13 |
| D | - | 0.045 | - | 1.14 |
| E | 0.110 | 0.120 | 2.79 | 3.04 |
| F | 0.075 | | 1.90 | |
| G | - | 0.098 | - | 2.50 |
| H | 0.047 | 0.055 | 1.19 | 1.40 |
| J | 0.014 | 0.020 | 0.36 | 0.50 |
| K | 0.030 | 0.037 | 0.76 | 0.93 |
| L | 0.067 | | 1.70 | |

SOT-143 (REV: R2)