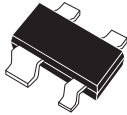


## BAS56

### DUAL HIGH CURRENT SWITCHING DIODE



SOT-143 CASE

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR BAS56 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package with isolated dual diodes, designed for high current, high speed switching applications.

**Marking code is L51.**

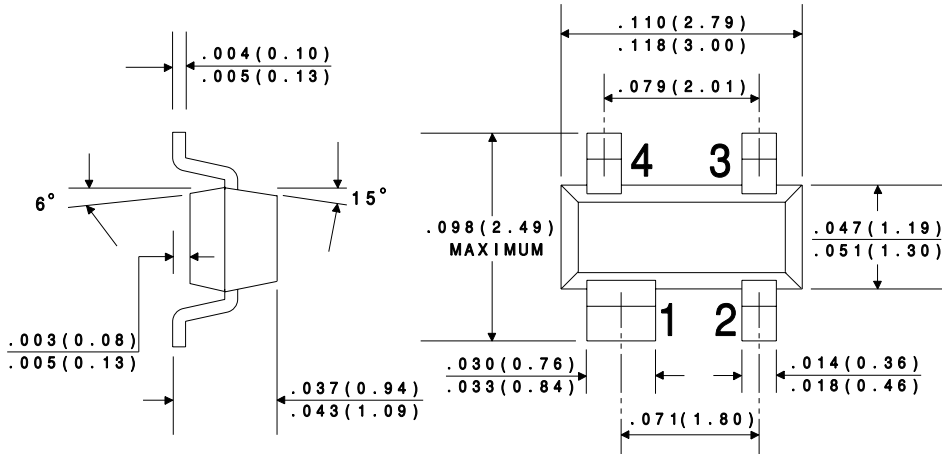
### MAXIMUM RATINGS (T<sub>A</sub>=25°C)

|                                   | SYMBOL                            |             | UNITS |
|-----------------------------------|-----------------------------------|-------------|-------|
| Continuous Reverse Voltage        | V <sub>R</sub>                    | 60          | V     |
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                  | 60          | V     |
| Continuous Forward Current        | I <sub>F</sub>                    | 200         | mA    |
| Peak Repetitive Forward Current   | I <sub>FRM</sub>                  | 600         | mA    |
| Forward Surge Current, tp=1 μsec. | I <sub>FSM</sub>                  | 4000        | mA    |
| Forward Surge Current, tp=1 sec.  | I <sub>FSM</sub>                  | 1000        | mA    |
| Power Dissipation                 | P <sub>D</sub>                    | 350         | mW    |
| Operating and Storage             |                                   |             |       |
| Junction Temperature              | T <sub>J</sub> , T <sub>stg</sub> | -65 to +150 | °C    |
| Thermal Resistance                | θ <sub>JA</sub>                   | 357         | °C/W  |

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

| SYMBOL          | TEST CONDITIONS   | MIN | MAX  | UNITS |
|-----------------|---|-----|------|-------|
| I <sub>R</sub>  | V <sub>R</sub> =60V   |     | 100  | nA    |
| I <sub>R</sub>  | V <sub>R</sub> =60V, T <sub>A</sub> =150°C                                |     | 100  | μA    |
| I <sub>R</sub>  | V <sub>R</sub> =75V   |     | 10   | μA    |
| V <sub>F</sub>  | I <sub>F</sub> =10mA  |     | 0.75 | V     |
| V <sub>F</sub>  | I <sub>F</sub> =200mA   |     | 1.00 | V     |
| V <sub>F</sub>  | I <sub>F</sub> =500mA   |     | 1.25 | V     |
| C <sub>T</sub>  | V <sub>R</sub> =0, f=1 MHz  |     | 2.5  | pF    |
| t <sub>rr</sub> | I <sub>F</sub> =I <sub>R</sub> =400mA, R <sub>L</sub> =100Ω, Rec. to 40mA |     | 6.0  | ns    |
| Q <sub>s</sub>  | I <sub>F</sub> =10mA, V <sub>R</sub> =5.0V, R <sub>L</sub> =500Ω          |     | 50   | pC    |
| V <sub>FR</sub> | I <sub>F</sub> =400mA, t <sub>r</sub> =30ns                               |     | 1.2  | V     |
| V <sub>FR</sub> | I <sub>F</sub> =400mA, t <sub>r</sub> =100ns                              |     | 1.5  | V     |

All dimensions in inches (mm).



LEAD CODE:

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