

BAV45
SILICON
PICOAMPERE DIODE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BAV45 is a silicon picoampere diode, mounted in a hermetically sealed metal case, designed for extremely low leakage applications.



TO-18 (2-LEAD) CASE

MARKING: FULL PART NUMBER

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

Peak Repetitive Reverse Voltage
Continuous Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{RRM} 35
 V_R 20
 I_F 50
 I_{FRM} 100
 T_J, T_{stg} -65 to +125
 θ_{JA} 500

UNITS

V
V
mA
mA
 $^\circ\text{C}$
 $^\circ\text{C/W}$

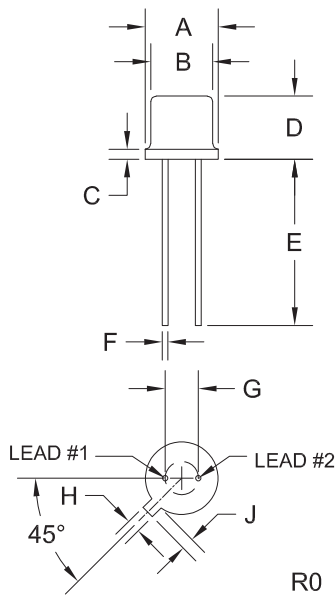
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|---|-----|-----|-------|
| I_R | $V_R=5.0\text{V}$ | | 5.0 | pA |
| I_R | $V_R=5.0\text{V}, T_A=80^\circ\text{C}$ | | 250 | pA |
| I_R | $V_R=20\text{V}$ | | 10 | pA |
| V_F | $I_F=10\text{mA}$ | | 1.0 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | | 1.3 | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | 600 | ns |

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TO-18 (2-LEAD) CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|---------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A (DIA) | 0.209 | 0.230 | 5.31 | 5.84 |
| B (DIA) | 0.178 | 0.195 | 4.52 | 4.95 |
| C | - | 0.030 | - | 0.76 |
| D | 0.170 | 0.210 | 4.32 | 5.33 |
| E | 0.500 | - | 12.70 | - |
| F (DIA) | 0.016 | 0.019 | 0.41 | 0.48 |
| G (DIA) | 0.100 | | 2.54 | |
| H | 0.036 | 0.046 | 0.91 | 1.17 |
| J | 0.028 | 0.048 | 0.71 | 1.22 |

TO-18 (2 LEAD) (REV: R0)

LEAD CODE:

- 1) Anode
- 2) Cathode

MARKING: FULL PART NUMBER

R0

R1 (1-May 2013)