

2N2646
2N2647

**SILICON
PN UNIJUNCTION TRANSISTORS**



TO-18 (UJT) CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N2646 and 2N2647 devices are silicon PN Unijunction Transistors designed for general purpose industrial applications.

MARKING: FULL PART NUMBER

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

| | | | |
|--|----------------|-------------|------------------|
| Emitter Reverse Voltage | V_{B2E} | 30 | V |
| Interbase Voltage | V_{B2B1} | 35 | V |
| RMS Emitter Current | I_e | 50 | mA |
| Peak Emitter Current (Duty Cycle $\leq 1\%$, PRR ≤ 10 pps) | i_e | 2.0 | A |
| RMS Power Dissipation | P_D | 300 | mW |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |

SYMBOL

UNITS

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

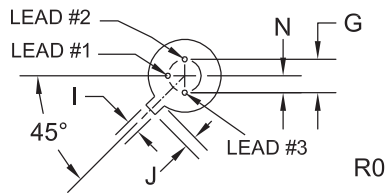
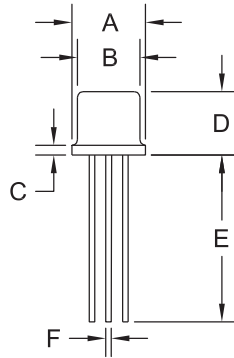
| SYMBOL | TEST CONDITIONS | 2N2646 | | 2N2647 | | UNITS |
|------------|---|--------|------|--------|------|---------------|
| | | MIN | MAX | MIN | MAX | |
| η | $V_{B2B1}=10\text{V}$ | 0.56 | 0.75 | 0.68 | 0.82 | |
| R_{BB} | $V_{B2B1}=3.0\text{V}$ | 4.7 | 9.1 | 4.7 | 9.1 | k Ω |
| I_{EB2O} | $V_{B2E}=30\text{V}$ | - | 12 | - | 0.2 | μA |
| I_V | $V_{B2B1}=20\text{V}, R_{B2}=100\Omega$ | 4.0 | - | 8.0 | 18 | mA |
| I_P | $V_{B2B1}=25\text{V}$ | - | 5.0 | - | 2.0 | μA |
| V_{OB1} | $V_1=20\text{V}$ | 3.0 | - | 6.0 | - | V |

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TO-18 (UJT) CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Emitter
- 2) Base 1
- 3) Base 2

MARKING: FULL PART NUMBER

| 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 | 0.050 | | 1.27 | |
| I | 0.036 | 0.046 | 0.91 | 1.17 |
| J | 0.028 | 0.048 | 0.71 | 1.22 |

TO-18 (UJT) (REV: R0)

R1 (2-December 2013)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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