

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

BC327  
BC327A  
BC328

PNP SILICON TRANSISTOR

JEDEC TO-92-18R CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR BC327, BC327A, BC328 types are Silicon PNP Transistors designed for general purpose switching and amplifier applications.

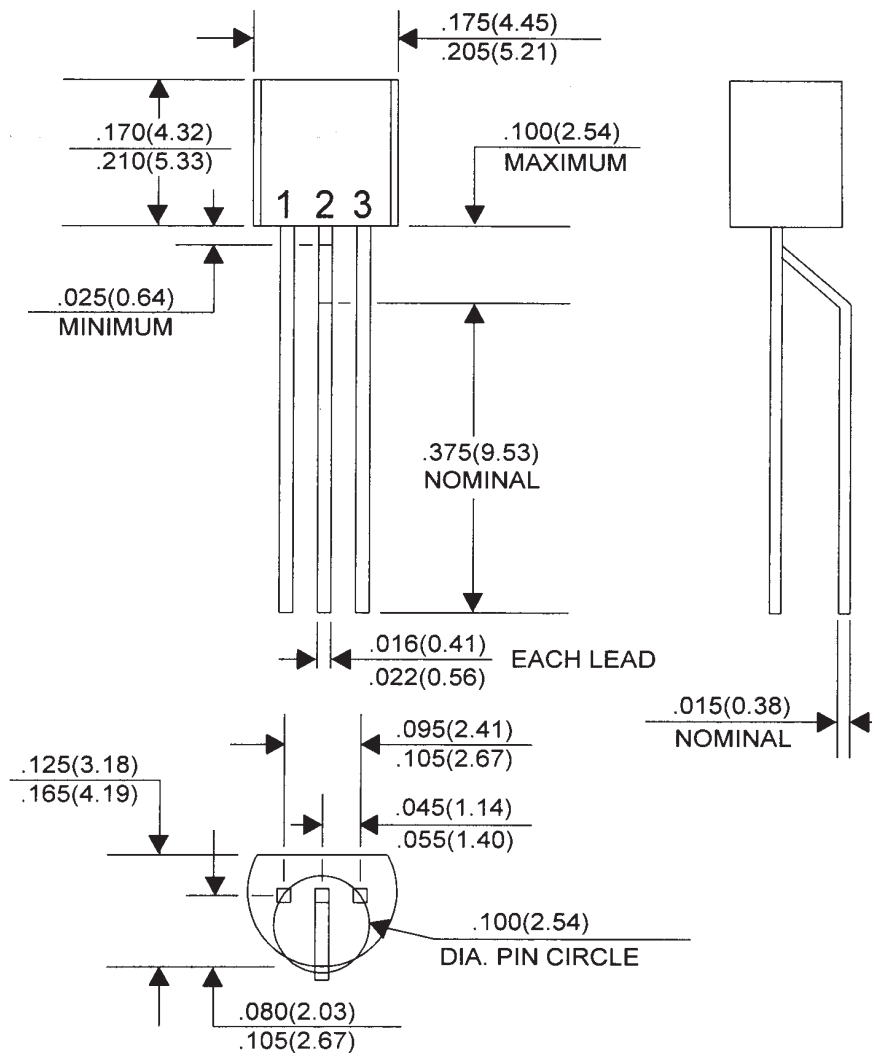
## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

|                           | SYMBOL                            | BC327 | BC327A      | BC328 | UNITS |
|---------------------------|-----------------------------------|-------|-------------|-------|-------|
| Collector-Base Voltage    | V <sub>CB0</sub>                  | 50    | 60          | 30    | V     |
| Collector-Emitter Voltage | V <sub>CEO</sub>                  | 45    | 60          | 25    | V     |
| Emitter-Base Voltage      | V <sub>EBO</sub>                  |       | 5.0         |       | V     |
| Collector Current         | I <sub>C</sub>                    |       | 500         |       | mA    |
| Peak Collector Current    | I <sub>CM</sub>                   |       | 1.0         |       | A     |
| Base Current              | I <sub>B</sub>                    |       | 100         |       | mA    |
| Peak Base Current         | I <sub>BM</sub>                   |       | 200         |       | mA    |
| Power Dissipation         | P <sub>D</sub>                    |       | 625         |       | mW    |
| Operating and Storage     |                                   |       |             |       |       |
| Junction Temperature      | T <sub>J</sub> , T <sub>stg</sub> |       | -65 to +150 |       | °C    |
| Thermal Resistance        | Θ <sub>JA</sub>                   |       | 200         |       | °C/W  |

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

| SYMBOL               | TEST CONDITIONS   | MIN | TYP | MAX | UNITS |
|----------------------|---|-----|-----|-----|-------|
| I <sub>CBO</sub>     | V <sub>CB</sub> =20V  |     |     | 100 | nA    |
| I <sub>CBO</sub>     | V <sub>CB</sub> =20V, T <sub>A</sub> =150°C                       |     |     | 5.0 | μA    |
| I <sub>EBO</sub>     | V <sub>EB</sub> =5.0V   |     |     | 100 | nA    |
| V <sub>CE(SAT)</sub> | I <sub>C</sub> =500mA, I <sub>B</sub> =50mA                       |     |     | 0.7 | V     |
| V <sub>BE(ON)</sub>  | V <sub>CE</sub> =1.0V, I <sub>C</sub> =500mA                      |     |     | 1.2 | V     |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA (BC327, BC328)       | 100 |     | 600 |       |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA (BC327A)             | 100 |     | 400 |       |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA (BC327-16, BC328-16) | 100 |     | 250 |       |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA (BC327-25, BC328-25) | 160 |     | 400 |       |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA (BC327-40, BC328-40) | 250 |     | 600 |       |
| h <sub>FE</sub>      | V <sub>CE</sub> =1.0V, I <sub>C</sub> =500mA (All Types)          | 40  |     |     |       |
| f <sub>T</sub>       | V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=100MHz             | 80  |     |     | MHz   |
| C <sub>c</sub>       | V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz                 |     | 10  |     | pF    |

(See Reverse Side)

JEDEC TO-92-18R - MECHANICAL OUTLINE

All Dimensions in Inches (mm).

LEAD CODE:

- 1) COLLECTOR
- 2) BASE
- 3) EMITTER

**Central**<sup>TM</sup>  
**Semiconductor Corp.**  
[www.centrasemi.com](http://www.centrasemi.com)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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