

PN3567
PN3568
PN3569

**SILICON
NPN TRANSISTORS**



TO-92 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR PN3567 series devices are silicon NPN small signal transistors designed for general purpose amplifier applications.

MARKING: FULL PART NUMBER

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Continuous Base Current
Power Dissipation
Operating and Storage Junction Temperature

| SYMBOL | PN3567 | PN3568 | PN3569 | UNITS |
|----------------|--------|-------------|--------|------------------|
| V_{CB0} | 80 | 80 | 80 | V |
| V_{CEO} | 40 | 60 | 40 | V |
| V_{EBO} | | 5.0 | | V |
| I_C | | 500 | | mA |
| I_B | | 100 | | mA |
| P_D | | 625 | | mW |
| T_J, T_{stg} | | -65 to +150 | | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|---|-----|-----|---------------|
| I_{CBO} | $V_{CB}=40\text{V}$ | | 50 | nA |
| I_{CBO} | $V_{CB}=40\text{V}, T_A=75^\circ\text{C}$ | | 5.0 | μA |
| I_{EBO} | $V_{EB}=4.0\text{V}$ | | 25 | nA |
| BV_{CBO} | $I_C=100\mu\text{A}$ | 80 | | V |
| BV_{CEO} | $I_C=30\text{mA}$ (PN3568) | 60 | | V |
| BV_{CEO} | $I_C=30\text{mA}$ (PN3567, PN3569) | 40 | | V |
| BV_{EBO} | $I_E=10\mu\text{A}$ | 5.0 | | V |
| $V_{CE(SAT)}$ | $I_C=150\text{mA}, I_B=15\text{mA}$ | | 250 | mV |
| $V_{BE(ON)}$ | $V_{CE}=1.0\text{V}, I_C=150\text{mA}$ | | 1.1 | V |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=30\text{mA}$ (PN3567, PN3568) | 40 | | |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=30\text{mA}$ (PN3569) | 100 | | |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=150\text{mA}$ (PN3567, PN3568) | 40 | 120 | |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=150\text{mA}$ (PN3569) | 100 | 300 | |
| C_{ob} | $V_{CB}=10\text{V}, I_E=0, f=140\text{kHz}$ | | 20 | pF |
| C_{ib} | $V_{EB}=0.5\text{V}, I_C=0, f=140\text{kHz}$ | | 80 | pF |
| f_T | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=20\text{MHz}$ | 60 | 600 | MHz |

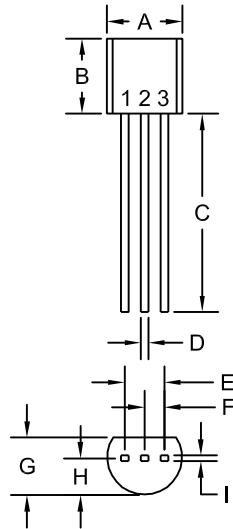
R1 (16-December 2013)

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TO-92 CASE - MECHANICAL OUTLINE



R1

| SYMBOL | INCHES | | MILLIMETERS | |
|---------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A (DIA) | 0.175 | 0.205 | 4.45 | 5.21 |
| B | 0.170 | 0.210 | 4.32 | 5.33 |
| C | 0.500 | - | 12.70 | - |
| D | 0.016 | 0.022 | 0.41 | 0.56 |
| E | 0.100 | | 2.54 | |
| F | 0.050 | | 1.27 | |
| G | 0.125 | 0.165 | 3.18 | 4.19 |
| H | 0.080 | 0.105 | 2.03 | 2.67 |
| I | 0.015 | | 0.38 | |

TO-92 (REV: R1)

LEAD CODE:

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

MARKING:
 FULL PART NUMBER

R1 (16-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).

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