

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N3567
2N3568
2N3569

PN3567
PN3568
PN3569

JEDEC TO-105

JEDEC TO-92 (EBC)

SILICON NPN TRANSISTORS

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3567, PN3567 Series types are Silicon NPN Small Signal Transistors designed for general purpose amplifier applications.

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

| | SYMBOL | 2N3568 PN3568 | 2N3567 PN3567 2N3569 PN3569 | UNIT |
|---|----------------|------------------|--------------------------------------|--------------------|
| Collector-Base Voltage | V_{CB0} | 80 | 80 | V |
| Collector-Emitter Voltage | V_{CE0} | 60 | 40 | V |
| Emitter-Base Voltage | V_{EB0} | 5.0 | 5.0 | V |
| Collector Current | I_C | 500 | 500 | mA |
| Base Current | I_B | 100 | 100 | mA |
| Power Dissipation, PN Types (TO-92 Case) | P_D | | 625 | mW |
| Power Dissipation, 2N Types (TO-105 Case) | P_D | | 350 | mW |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -55 TO +150 | | $^{\circ}\text{C}$ |

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

| SYMBOL | TEST CONDITIONS | 2N3567 PN3567 | | 2N3568 PN3568 | | 2N3569 PN3569 | | UNIT |
|----------------------|--|------------------|------|------------------|------|------------------|------|---------------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | |
| I_{CB0} | $V_{CB}=40\text{V}$ | | 50 | | 50 | | 50 | nA |
| I_{CB0} | $V_{CB}=40\text{V}, T_A=75^{\circ}\text{C}$ | | 5.0 | | 5.0 | | 5.0 | μA |
| I_{EB0} | $V_{EB}=4.0\text{V}$ | | 25 | | 25 | | 25 | nA |
| BV_{CB0} | $I_C=100\mu\text{A}$ | 80 | | 80 | | 80 | | V |
| BV_{CE0} | $I_C=30\text{mA}$ | 40 | | 60 | | 40 | | V |
| BV_{EB0} | $I_E=10\mu\text{A}$ | 5.0 | | 5.0 | | 5.0 | | V |
| $V_{CE}(\text{SAT})$ | $I_C=150\text{mA}, I_B=15\text{mA}$ | | 0.25 | | 0.25 | | 0.25 | V |
| $V_{BE}(\text{ON})$ | $V_{CE}=1.0\text{V}, I_C=150\text{mA}$ | | 1.1 | | 1.1 | | 1.1 | V |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=30\text{mA}$ | 40 | | 40 | | 100 | | |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=150\text{mA}$ | 40 | 120 | 40 | 120 | 100 | 300 | |
| C_{ob} | $V_{CB}=10\text{V}, f=140\text{kHz}$ | | 20 | | 20 | | 20 | pF |
| C_{eb} | $V_{EB}=0.5\text{V}, f=140\text{kHz}$ | | 80 | | 80 | | 80 | pF |
| f_T | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=20\text{MHz}$ | 60 | 600 | 60 | 600 | 60 | 600 | MHz |

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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

| | |
|---------------------------|----------|
| PDN ID: | PDN01062 |
| Notification Date: | 1/13/17 |
| Last Buy Date: | 7/13/17 |
| Last Shipment Date | 1/13/18 |

Summary: All transistors manufactured in the TO-105 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| 2N3567 | PN3567 |
| 2N3568 | PN3568 |
| 2N3569 | PN3569 |
| 2N3638 | PN3638A |
| 2N3638A | PN3638A |
| 2N3644 | PN3644 |
| 2N4354 | PN4354 |
| 2N4355 | PN4355 |
| 2N4356 | PN4356 |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Central Semiconductor:

[PN3568 TIN/LEAD](#) [PN3569 TIN/LEAD](#) [PN3567 TIN/LEAD](#)