

2N5457
2N5458
2N5459

SILICON
N-CHANNEL JFETS



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The CENTRAL SEMICONDUCTOR 2N5457, 2N5458, and 2N5459 are silicon N-Channel JFETs designed for switching and amplifier applications.



TO-92 CASE

MARKING: FULL PART NUMBER

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

Drain-Source Voltage
Drain-Gate Voltage
Gate-Source Voltage
Continuous Gate Current
Power Dissipation
Operating and Storage Junction Temperature

SYMBOL

V_{DS} 25
 V_{DG} 25
 V_{GS} 25
 I_G 10
 P_D 310
 T_J, T_{stg} -65 to +150

UNITS

V
V
V
mA
mW
 $^\circ\text{C}$

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

| SYMBOL | TEST CONDITIONS | 2N5457 | | 2N5458 | | 2N5459 | | UNITS |
|---------------|--|--------|------|--------|------|--------|------|---------------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | |
| I_{GSS} | $V_{GS}=15\text{V}$ | - | 1.0 | - | 1.0 | - | 1.0 | nA |
| I_{GSS} | $V_{GS}=15\text{V}, T_A=100^\circ\text{C}$ | - | 200 | - | 200 | - | 200 | nA |
| I_{DSS} | $V_{DS}=15\text{V}$ | 1.0 | 5.0 | 2.0 | 9.0 | 4.0 | 16 | mA |
| BV_{GSS} | $I_G=10\mu\text{A}$ | 25 | - | 25 | - | 25 | - | V |
| $V_{GS(OFF)}$ | $V_{DS}=15\text{V}, I_D=10\text{nA}$ | 0.5 | 6.0 | 1.0 | 7.0 | 2.0 | 8.0 | V |
| C_{rss} | $V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | - | 3.0 | - | 3.0 | - | 3.0 | pF |
| C_{iss} | $V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | - | 7.0 | - | 7.0 | - | 7.0 | pF |
| g_{fs} | $V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{kHz}$ | 1.0K | 5.0K | 1.5K | 5.5K | 2.0K | 6.0K | μS |
| g_{os} | $V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{kHz}$ | - | 50 | - | 50 | - | 50 | μS |

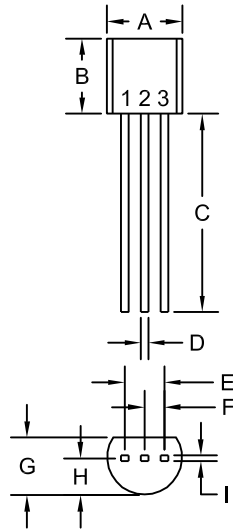
R1 (6-March 2014)

2N5457
 2N5458
 2N5459

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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) Drain
- 2) Source
- 3) Gate

MARKING:
 FULL PART NUMBER

R1 (6-March 2014)

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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