

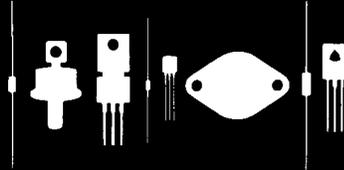
Central Semiconductor Corp.

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145 Adams Avenue
Hauppauge, New York 11788



2N3820
P-CHANNEL JUNCTION FET
JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3820 type is a Silicon P-Channel Junction Field Effect Transistor designed for low level amplifier applications.

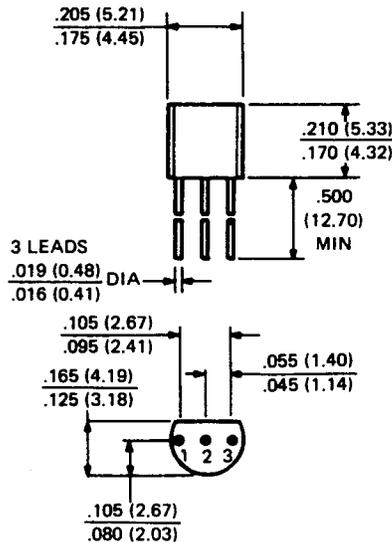
MAXIMUM RATINGS($T_A=25^\circ\text{C}$)

| | SYMBOL | | UNIT |
|---|----------------|-------------|------------------|
| Gate-Drain Voltage | V_{GD} | 20 | V |
| Drain-Source Voltage | V_{DS} | 20 | V |
| Gate-Source Voltage (Reverse) | V_{GS} | 20 | V |
| Gate Current | I_G | 10 | mA |
| Power Dissipation | P_D | 360 | mW |
| Operating and Storage Junction Temperature | 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 | UNIT |
|---------------|--|-----|------|-----------------|
| I_{GSS} | $V_{GS}=10\text{V}$ | | 20 | nA |
| I_{GSS} | $V_{GS}=10\text{V}, T_A=100^\circ\text{C}$ | | 2.0 | μA |
| I_{DSS} | $V_{DS}=10\text{V}$ | 0.3 | 15 | mA |
| BV_{GSS} | $I_G=10\mu\text{A}$ | 20 | | V |
| V_{GS} | $V_{DS}=10\text{V}, I_D=30\mu\text{A}$ | 0.3 | 7.9 | V |
| $V_{GS(OFF)}$ | $V_{DS}=10\text{V}, I_D=10\mu\text{A}$ | | 8.0 | V |
| C_{iss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | | 32 | pF |
| C_{rss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | | 16 | pF |
| $ y_{fs1} $ | $V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{kHz}$ | 800 | 5000 | μmho |
| $ y_{fs1} $ | $V_{DS}=10\text{V}, V_{GS}=0, f=10\text{MHz}$ | 700 | | μmho |
| $ y_{os1} $ | $V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{kHz}$ | | 200 | μmho |

OUTLINE DRAWING:



LEAD CODE:

1. DRAIN
2. GATE
3. SOURCE

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

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

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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

Product End of Life Notification

| | |
|---------------------------|------------------|
| PDN ID: | PDN01101 Rev:001 |
| Notification Date: | 6/08/21 |
| Last Buy Date: | 7/18/19 |
| Last Shipment Date | 1/18/20 |

Summary: The Junction Field Effect Transistors (JFETs) listed below were discontinued on January 18, 2019, and are currently classified as End of Life (EOL). Rev:001 of PDN#01101, June 8, 2021, is being issued to remove part numbers 2N2608, 2N4340 and PN5033 from the PDN to address market demand; 2N2608, 2N4340 and PN5033 are now active devices.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other 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 ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

| <u>Central Part Number</u> | <u>Suggested Replacement</u> |
|----------------------------|------------------------------|
| BF244B | N/A |
| BF244C | N/A |
| BF246A | N/A |
| BSV79 | N/A |
| BSV80 | N/A |
| CMPFJ310 BK | N/A |
| CMPFJ310 TR | N/A |
| PN4302 | N/A |
| 2N3820 | N/A |
| 2N3955 | N/A |
| 2N4341 | N/A |
| 2N5115 | N/A |
| 2N5953 | N/A |

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@centralsemi.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.