

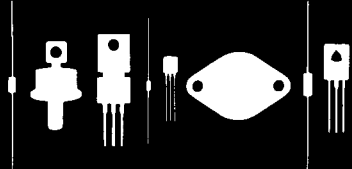
Central Semiconductor Corp.

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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.

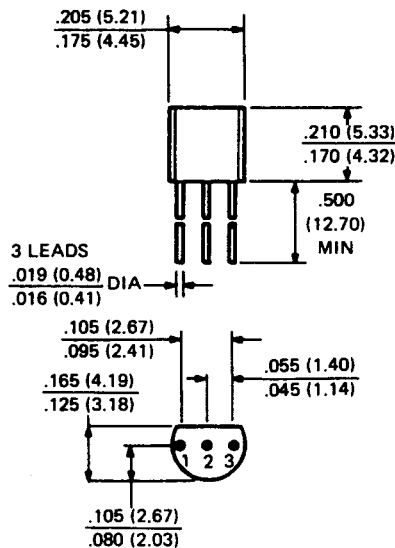
MAXIMUM RATINGS( $T_A=25^\circ\text{C}$ )

	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	$\mu\text{A}$
$I_{DSS}$	$V_{DS}=10\text{V}$	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_{fs} $	$V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{kHz}$	800	5000	$\mu\text{mho}$
$ y_{fs} $	$V_{DS}=10\text{V}, V_{GS}=0, f=10\text{MHz}$	700		$\mu\text{mho}$
$ y_{os} $	$V_{DS}=10\text{V}, V_{GS}=0, f=1.0\text{kHz}$		200	$\mu\text{mho}$

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



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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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### 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.centalsemi.com](http://www.centalsemi.com)

**Worldwide Field Representatives:**  
[www.centalsemi.com/wwreps](http://www.centalsemi.com/wwreps)

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