

2N3819

SILICON
N-CHANNEL JFET



www.centrasemi.com

The CENTRAL SEMICONDUCTOR 2N3819 is a silicon N-Channel JFET designed for RF amplifier and mixer applications.



TO-92 CASE

MARKING: FULL PART NUMBER

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

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

SYMBOL

V_{DG} 25
 V_{DS} 25
 V_{GS} 25
 I_G 10
 P_D 360
 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	MIN	MAX	UNITS
I_{GSS}	$V_{GS}=15\text{V}$		2.0	nA
I_{GSS}	$V_{GS}=15\text{V}, T_A=100^\circ\text{C}$		2.0	μA
I_{DSS}	$V_{DS}=15\text{V}$	2.0	20	mA
BV_{GSS}	$I_G=1.0\mu\text{A}$	25		V
$V_{GS(OFF)}$	$V_{DS}=15\text{V}, I_D=2.0\text{nA}$		8.0	V
V_{GS}	$V_{DS}=15\text{V}, I_D=200\mu\text{A}$	0.5	7.5	V
$ Y_{fs} $	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$	2.0	6.5	mS
$ Y_{fs} $	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$	1.6		mS
$ Y_{os} $	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{kHz}$		50	μS
C_{iss}	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		8.0	pF
C_{rss}	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		4.0	pF

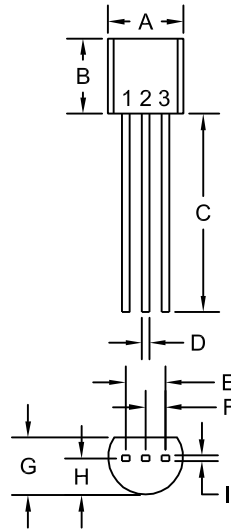
R1 (9-January 2014)

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TO-92 CASE - MECHANICAL OUTLINE



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	

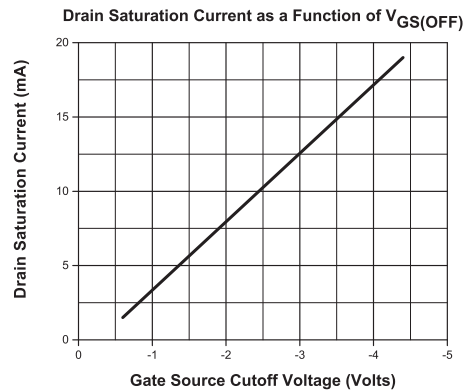
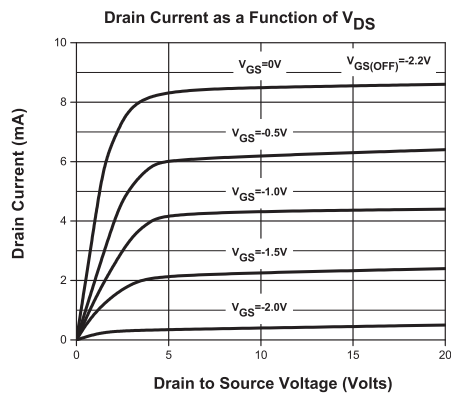
TO-92 (REV: R1)

LEAD CODE:

- 1) Drain
- 2) Gate
- 3) Source

MARKING:
FULL PART NUMBER

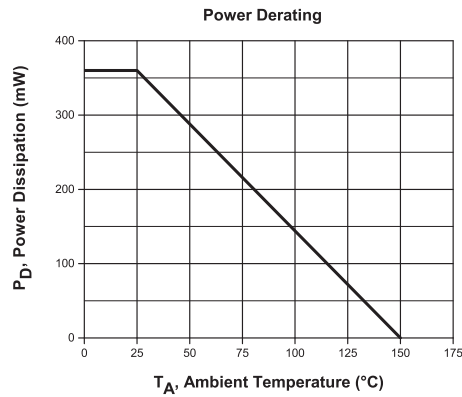
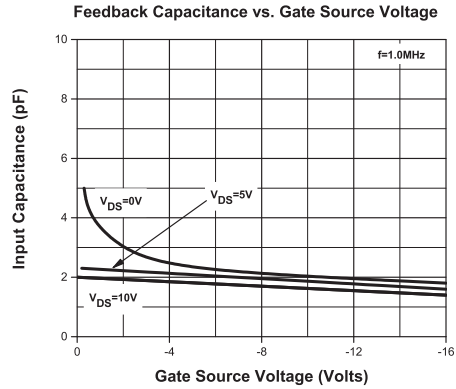
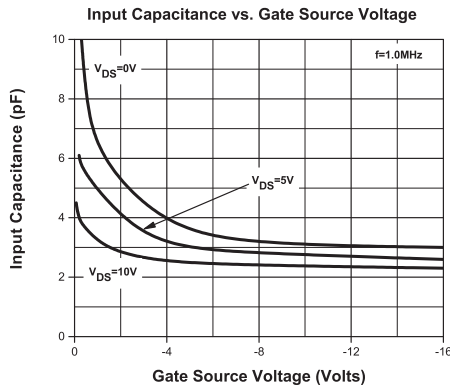
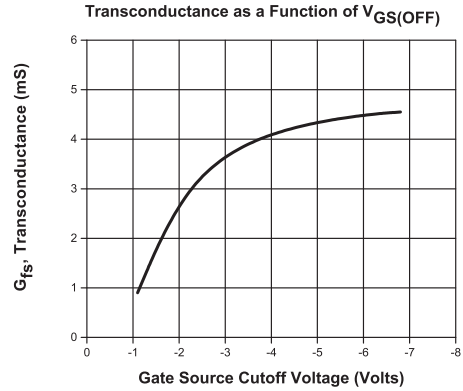
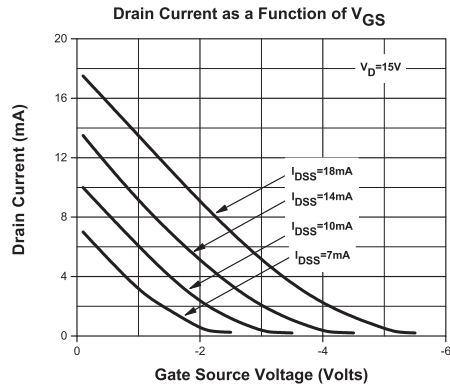
TYPICAL ELECTRICAL CHARACTERISTICS



R1 (9-January 2014)

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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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