

#### SILICON N-CHANNEL JFET

**TO-92 CASE** 



www.centralsemi.com

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



MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Drain-Gate Voltage	V <sub>DG</sub>	25	V
Drain-Source Voltage	V <sub>DS</sub>	25	V
Gate-Source Voltage	V <sub>GS</sub>	25	V
Continuous Gate Current	۱ <sub>G</sub>	10	mA
Power Dissipation	PD	360	mW
Operating and Storage Junction Temperature	TJ, T <sub>stg</sub>	-65 to +150	°C

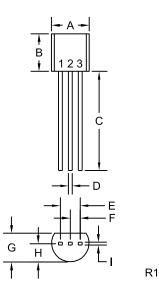
ELECTRICAL CHARACTERISTICS: (T <sub>A</sub> =25°C unless otherwise noted)						
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS		
IGSS	V <sub>GS</sub> =15V		2.0	nA		
IGSS	V <sub>GS</sub> =15V, T <sub>A</sub> =100°C		2.0	μA		
IDSS	V <sub>DS</sub> =15V	2.0	20	mA		
BVGSS	I <sub>G</sub> =1.0μΑ	25		V		
V <sub>GS(OFF</sub>	) V <sub>DS</sub> =15V, I <sub>D</sub> =2.0nA		8.0	V		
V <sub>GS</sub>	V <sub>DS</sub> =15V, I <sub>D</sub> =200µA	0.5	7.5	V		
Y <sub>fs</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz	2.0	6.5	mS		
Y <sub>fs</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=100MHz	1.6		mS		
Y <sub>os</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0kHz		50	μS		
C <sub>iss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz		8.0	pF		
C <sub>rss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz		4.0	pF		

R1 (9-January 2014)



2N3819

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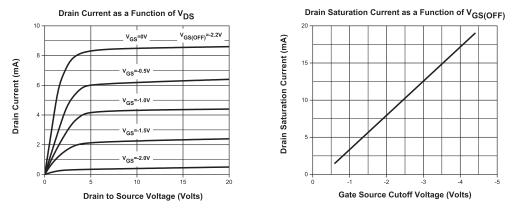
DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
A (DIA)	0.175	0.205	4.45	5.21			
В	0.170	0.210	4.32	5.33			
С	0.500	-	12.70	-			
D	0.016	0.022	0.41	0.56			
E	0.100		2.54				
F	0.050		1.27				
G	0.125	0.165	3.18	4.19			
Н	0.080	0.105	2.03	2.67			
	0.015		0.	38			
TO-92 (REV: R1)							

#### LEAD CODE:

- 1) Drain 2) Gate
- 3) Source

MARKING: FULL PART NUMBER

#### **TYPICAL ELECTRICAL CHARACTERISTICS**



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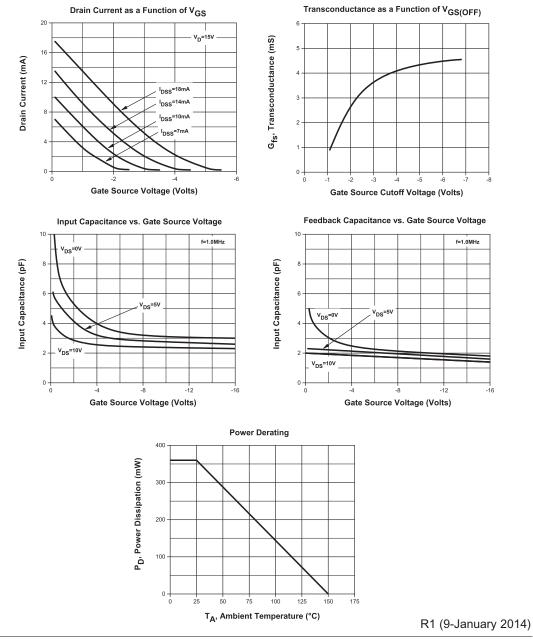
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## TO-92 CASE - MECHANICAL OUTLINE



### 2N3819

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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

#### 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

#### CONTACT US

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