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



### MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Drain-Source Voltage	V <sub>DS</sub>	25	V
Drain-Gate Voltage	V <sub>DG</sub>	25	V
Gate-Source Voltage	V <sub>GS</sub>	25	V
Continuous Gate Current	۱ <sub>G</sub>	10	mA
Power Dissipation	PD	310	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

#### **ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

		2N5	5457	<u>2N5</u>	54 <u>58</u>	<u>2N5</u>	<u>5459</u>	
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	UNITS
IGSS	V <sub>GS</sub> =15V	-	1.0	-	1.0	-	1.0	nA
I <sub>GSS</sub>	V <sub>GS</sub> =15V, T <sub>A</sub> =100°C	-	200	-	200	-	200	nA
IDSS	V <sub>DS</sub> =15V	1.0	5.0	2.0	9.0	4.0	16	mA
BVGSS	Ι <sub>G</sub> =10μΑ	25	-	25	-	25	-	V
V <sub>GS(OFF)</sub>	V <sub>DS</sub> =15V, I <sub>D</sub> =10nA	0.5	6.0	1.0	7.0	2.0	8.0	V
C <sub>rss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz	-	3.0	-	3.0	-	3.0	pF
C <sub>iss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz	-	7.0	-	7.0	-	7.0	pF
9 <sub>fs</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0kHz	1.0K	5.0K	1.5K	5.5K	2.0K	6.0K	μS
g <sub>os</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0kHz	-	50	-	50	-	50	μS

R1 (6-March 2014)

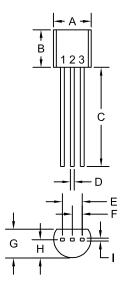




#### SILICON N-CHANNEL JFETS

# TO-92 CASE - MECHANICAL OUTLINE

R1



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) 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

#### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick 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

· Custom product packing

Custom bar coding for shipments

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- · Custom product and package development

#### REQUESTING PRODUCT PLATING

- If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when 1. 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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