

# CP206-2N4393 N-Channel JFET Die

The CP206-2N4393 is a silicon N-Channel small signal JFET designed for analog switching and chopper applications.

G		
	BACKSIDE GATE	R

#### **MECHANICAL SPECIFICATIONS:**

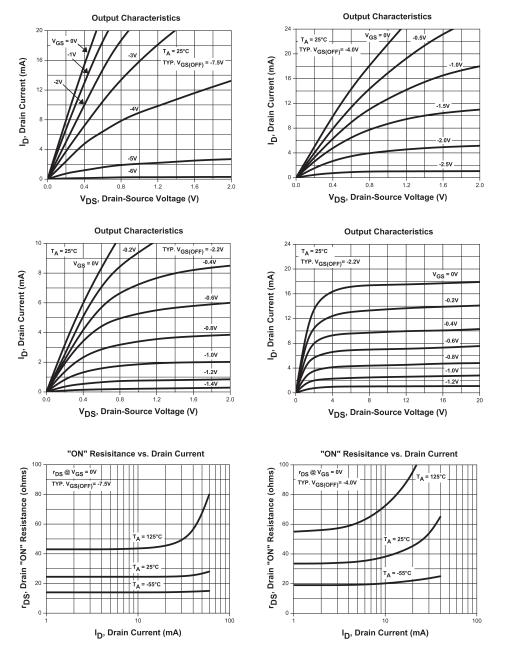
Die Size	21 x 18 MILS
Die Thickness	8.0 MILS
Drain Bonding Pad Size	3.0 x 3.0 MILS
Source Bonding Pad Size	3.0 x 3.0 MILS
Gate Bonding Pad Size	3.0 x 3.0 MILS
Top Side Metalization	AI – 30,000Å
Back Side Metalization	Au – 6,000Å
Scribe Alley Width	3.0 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	45,000

MAXIMUM R	ATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Gate-Drain V	oltage	V <sub>GD</sub>	40	V
Gate-Source	Voltage	V <sub>GS</sub>	40	V
Gate Current		۱ <sub>G</sub>	50	mA
Operating an	d Storage Junction Temperature	TJ, Tstg	-65 to +175	°C
	L CHARACTERISTICS: (T <sub>A</sub> =25°C u			
SYMBOL		MIN	<b>MAX</b> 0.1	UNITS nA
IGSS	V <sub>GS</sub> =20V	_		
IDSS	V <sub>DS</sub> =20V	5.0	30	mA
<sup>I</sup> D(OFF)	V <sub>DS</sub> =20V, V <sub>GS</sub> =5.0V		0.1	nA
BVGSS	I <sub>G</sub> =1.0μA	40		V
V <sub>GS(OFF)</sub>	V <sub>DS</sub> =20V, I <sub>D</sub> =1.0nA	0.5	3.0	V
V <sub>GS(f)</sub>	V <sub>DS</sub> =0, I <sub>G</sub> =1.0mA		1.0	V
VDS(ON)	I <sub>D</sub> =3.0mA		0.4	V
rDS(ON)	I <sub>D</sub> =1.0mA, V <sub>GS</sub> =0		100	Ω
C <sub>rss</sub>	V <sub>GS</sub> =5.0V, V <sub>DS</sub> =0, f=1.0MHz		3.5	pF
C <sub>iss</sub>	V <sub>DS</sub> =20V, V <sub>GS</sub> =0, f=1.0MHz		14	pF
t <sub>on</sub>	ID(ON)=3.0mA		15	ns
toff	VGS(OFF)=5.0V		50	ns

# **CP206-2N4393** Typical Electrical Characteristics



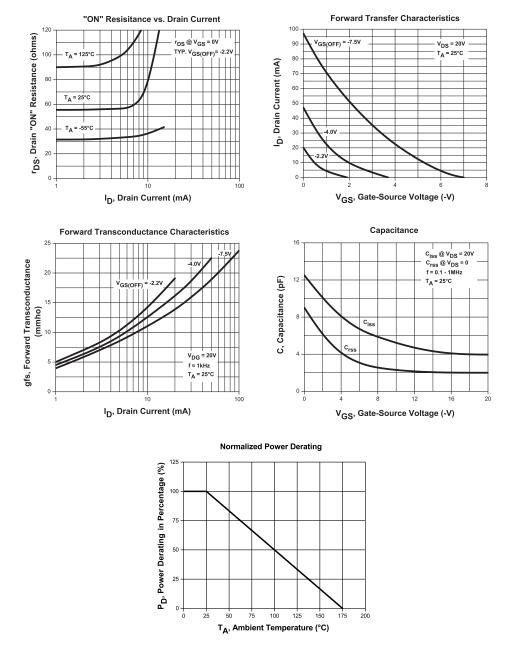
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R1 (5-February 2016)

# **CP206-2N4393** Typical Electrical Characteristics



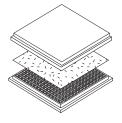


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# BARE DIE PACKING OPTIONS



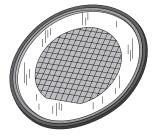


## BARE DIE IN TRAY (WAFFLE) PACK

- CT: Singulated die in tray (waffle) pack. (example: CP211-PART NUMBER-CT)
- CM: Singulated die in tray (waffle) pack 100% visually inspected as per MIL-STD-750, (method 2072 transistors, method 2073 diodes). (example: CP211-<u>PART NUMBER</u>-CM)

### **UNSAWN WAFER**

WN: Full wafer, unsawn, 100% tested with reject die inked. (example: CP211-PART NUMBER-WN)



# SAWN WAFER ON PLASTIC RING

WR: Full wafer, sawn and mounted on plastic ring, 100% tested with reject die inked. (example: CP211-PART NUMBER-WR)

Please note: Sawn Wafer on Metal Frame (WS) is possible as a special order. Please contact your Central Sales Representative at 631-435-1110.



Visit the Central website for a complete listing of specifications: www.centralsemi.com/bdspecs

## **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 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

ss your design challenges.

· Custom product packing

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

Custom bar coding for shipments

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).
- 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**

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.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

Worldwide Distributors: www.centralsemi.com/wwdistributors

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# Product End of Life Notification

PDN ID:	PDN01136
Notification Date:	11/22/19
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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.



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# Product End of Life Notification

PDN ID:	PDN01136
Notification Date:	11/22/19
Last Buy Date:	
Last Shipment Date	Stock Only

Summary: The CP206 wafer process is being discontinued and is now classified as End of Life (EOL). The replacement wafer process is CP216.

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.

Central Part Number	Replacement	
CP206-2N4392-CM	CP216-2N4392-CM	
CP206-2N4392-CT	CP216-2N4392-CT	
CP206-2N4392-WN	CP216-2N4392-WN	
CP206-2N4393-CT	CP216-2N4393-CT	
CP206-2N4393-CT20	CP216-2N4393-CT20	
CP206-2N4393-WN	CP216-2N4393-WN	
CP206-2N4856-CM	CP216-2N4856-CM	
CP206-2N4856-CT	CP216-2N4856-CT	

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.

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