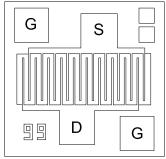


# CP548-2N5116 P-Channel JFET Die

www.centralsemi.com

The CP548-2N5116 is a silicon P-Channel small signal JFET designed for analog switching and chopper applications.



BACKSIDE GATE

### **MECHANICAL SPECIFICATIONS:**

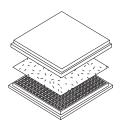
Die Size	21 x 21 MILS
Die Thickness	11.5 MILS
Drain Bonding Pad Size	4.0 x 4.0 MILS
Source Bonding Pad Size	4.0 x 4.0 MILS
Gate Bonding Pad Size	4.0 x 4.0 MILS
Top Side Metalization	AI – 30,000Å
Back Side Metalization	Au – 8,000Å
Scribe Alley Width	2.0 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	12,000

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Gate-Drain Voltage	$V_{\sf GD}$	30	V
Gate-Source Voltage	$V_{GS}$	30	V
Gate Current	IG	50	mA
Operating and Storage Junction Temperature	$T_{\rm J}, T_{\rm sta}$	-65 to +150	°C

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
IGSS	V <sub>GS</sub> =20V		500	pA
IDSS	V <sub>DS</sub> =15V	5.0	25	mA
I <sub>D(OFF)</sub>	$V_{DS}$ =15V, $V_{GS}$ =5.0V		500	pA
BVGSS	I <sub>G</sub> =1.0μA	30		V
V <sub>GS(OFF)</sub>	$V_{DS}$ =15V, $I_D$ =1.0nA	1.0	4.0	V
$V_{GS(f)}$	I <sub>G</sub> =1.0mA		1.0	V
V <sub>DS(ON)</sub>	I <sub>D</sub> =3.0mA		0.6	V
rDS(ON)	$I_D=1.0$ mA, $V_{GS}=0$		150	Ω
r <sub>ds(ON)</sub>	$V_{GS}$ =0, $I_D$ =0, f=1.0kHz		150	Ω
C <sub>iss</sub>	$V_{DS}$ =15V, $V_{GS}$ =0, f=1.0MHz		25	pF
C <sub>rss</sub>	$V_{GS}$ =5.0V, $V_{DS}$ =0, f=1.0MHz		7.0	pF
ton	$V_{DD}=6.0V, V_{GS}=5.0V,$		42	ns
t <sub>off</sub>	$\left[ I_{D}=3.0 \text{mA}, R_{L}=1.8 \text{k}\Omega \right]$		60	ns

### BARE DIE PACKING OPTIONS

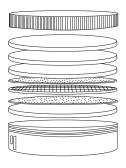




## BARE DIE IN TRAY (WAFFLE) PACK

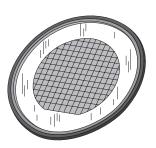
CT: Singulated die in tray (waffle) pack. (example: CP211-PART NUMBER-CT)

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

R2 (3-April 2017)

### **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 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

- · 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).

#### **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

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: <a href="https://www.centralsemi.com/terms">www.centralsemi.com/terms</a>

www.centralsemi.com (001)



PDN ID:	PDN00999
Notification Date:	8/03/15
Last Buy Date:	
Last Shipment Date	Varies

Summary: The purpose of this End of Life Notification is to identify the bare die devices that Central previously discontinued without notification. This list excludes standard packaged and custom devices. The discontinuance of these devices predates Central's current EOL notification process. The notification process now utilized by Central is industry standard and all future product discontinuation notifications will be issued accordingly. We apologize for any inconvenience caused.

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.

### \* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

Central Part Number	Replacement
CPD35-CMPSH-3-WN	CPD48V-CMPSH-3-WN
CPD41-1N3600-WN	N/A, Stock Only
CPD41-1N4148-CT	N/A, Stock Only
CPD41-1N4150-CT	N/A, Stock Only
CPD42-CMR1-06-WN	CPD69-CMR1-06M-WN
CPD42-CMR1-10-WN	CPD69-1N4007-WN
CPD63-1N4148-CT	CPD83V-1N4148-CT
CPD63-1N4148-CTAN	CPD83V-1N4148-CTAN
CPD63-1N4148-WN	CPD83V-1N4148-WN
CPD63-1N4148-WS	CPD83V-1N4148-WS
CPD63-1N4448-WN	CPD83V-1N4448-WN
CPD63-1N4454-CT	CPD83V-1N4454-CT
CPD63-1N914-CT	CPD83V-1N914-CT
CPD63-1N914-WN	CPD83V-1N914-WN
CPD63-1N914-WR	CPD83V-1N914-WR
CPD63-1N914A-WN	CPD83V-1N914A-WN
CPD64-CLL459A-CT	CPD66X-CLL459A-CT
CPD64-CMPD3003-CT	CPD66X-CMPD3003-CT
CPD64-CMPD3003-WN	CPD66X-CMPD3003-WN
CPD64-1N3595-CT	CPD66X-1N3595-CT
CPD64-1N3595-WN	CPD66X-1N3595-WN
CPD64-1N3595-WR	CPD66X-1N3595-WR
CPD64-1N485B-CT	CPD66X-1N485B-CT
CPD73-CMFBR-6F-WN	N/A, Stock Only
CPD77-1N5820-WN	CPD77X-1N5820-WN
CPD81-CZSH5-40-CT	CPD81X-CZSH5-40-CT
CPD86X-CZSH5-40-CT	CPD81X-CZSH5-40-CT
CPD92-CMPD6263-CT	CPD102X-CMPD6263-CT
CPD92-CMUD6263E-CT	CPD102X-6263E-CT
CPD92X-CMPD6263-WR	CPD102X-CMPD6263-WR
CPD99-MBR1645-CT	N/A, Stock Only
CPZ18-CMOZ3L9-CT	CPZ28X-CMOZ3L9-CT
*** CONTINUED ***	

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.



PDN ID:	PDN00999
Notification Date:	8/03/15
Last Buy Date:	Varies
Last Shipment Date	Varies

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

	,
Central Part Number	Replacement
CPZ18-CMPZ4626-CT	CPZ28X-1N4626-CT
CPZ18-CMPZ4626-WN	CPZ28X-CMPZ4626-WN
CPZ18-CMPZ5231B-CT	CPZ28X-CMPZ5231B-CT
CPZ18-CMPZ5232B-CT	CPZ28X-1N5232B-CT
CPZ18-1N4622-CT	CPZ28X-1N4622-CT
CPZ18-1N4626-WN	CPZ28X-CMPZ4626-WN
CPZ18-1N5231B-CT	CPZ28X-CMPZ5231B-CT
CPZ18-1N5232B-CT	CPZ28X-1N5232B-CT
CPZ18-1N5232B-CTAN	CPZ28X-1N5232B-CT
CPZ18-1N5524B-CT	CPZ28X-1N5524B-CT
CPZ18-1N751A-CT	CPZ28X-1N751A-CT
CPZ18-1N752A-CT	N/A, Stock Only
CPZ19-BZX84C39-CT	N/A, Stock Only
CPZ19-BZX84C8V2-WN	N/A, Stock Only
CPZ19-CMPZ5236B-CT	CPZ28X-CMPZ5236B-CT
CPZ19-CMPZ5241B-WN	N/A, Stock Only
CPZ19-CMPZ5244B-CT	CPZ28-CMPZ5244B-CT
CPZ19-CMPZ5246B-WN	N/A, Stock Only
CPZ19-CMPZ5254B-WN	CPZ28X-CMPZ5254B-WN
CPZ19-CMPZ5258B-CT	N/A, Stock Only
CPZ19-CMPZ5258B-WN	N/A, Stock Only
CPZ19-1N4753A-WN	CPZ25-1N4753A-WN
CPZ19-1N5236B-CT200	CPZ28X-5236B-CT200
CPZ19-1N5244B-CT	CPZ28X-1N5244B-CT
CPZ19-1N5258B-WN	N/A, Stock Only
CPZ19-1N6001B-CT	CPZ28-1N6001B-CT
CPZ19-1N6001B-WN	CPZ28-1N6001B-WN
CPZ28-BZX84C39-WR	CPZ28X-BZX84C39-WR
CP108-CRSH2-4-CT	N/A, Stock Only
CP108-CRSH2-5-CT	N/A, Stock Only
CP108-1N5819-CT	N/A, Stock Only
CP117-TIP112-CT	CP230-TIP122-CT
CP117-TIP121-CT	CP230-TIP122-CT
CP117-2N6045-CT	CP127-2N6045-CT
CP117-2N6300-CT	CP127-2N6300-CT
CP117-2N6301-CT	CP127-2N6301-CT
CP117-2N6301-WS	CP127-2N6301-WS
CP142-2N4240-CT	CP212-2N4240-CT
CP160-MPSA42-CT	CP310-MPSA42-CT
CP169-2N5179-WN	N/A, Stock Only
CP177-TIP50-WN	N/A, Stock Only
CP183-2N5320-CT	CP325V-2N5320-CT
CP188-BCW72-CT	N/A, Stock Only
*** CONTINUED ***	

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.



PDN ID:	PDN00999
Notification Date:	8/03/15
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Last Shipment Date	Varies

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\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

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Central Part Number	Replacement		
CP188-BC237B-CT	N/A, Stock Only		
CP188-CMPT5089-CT	CP388X-2N5089-CT		
CP188-CMPT5089-WN	N/A, Stock Only		
CP188-2N2484-CT	CP388X-2N2484-CT		
CP188-2N2484-WN	CP388X-2N2484-WN		
CP188-2N2920-CTJ	N/A, Stock Only		
CP188-2N5088-CTO	CP388X-2N5088-CT		
CP188V-BCX70K-WR	CP388X-BCX70K-WR		
CP188V-2N5088-CT	CP388X-2N5088-CT		
CP191-2N2219A-CT	N/A, Stock Only		
CP191-2N2222A-CT	CP191V-2N2222A-CT		
CP191-2N2222A-WN	CP191V-2N2222A-WN		
CP191-2N2222A-WR	CP191V-2N2222A-WR		
CP191-2N2222A-WS	CP191V-2N2222A-WR		
CP195-2N3501-CT	CP318V-2N3501-CT		
CP195-2N3501-WN	CP318V-2N3501-WN		
CP195-2N5682-CT	CP318V-2N5682-CT		
CP195-2N5682-WN	CP318V-2N5682-WN		
CP207-2N2369A-CT	CP396V-2N2369A-CT		
CP207-2N2369A-WN	CP396V-2N2369A-WN		
CP237-2N3725-CT	CP337V-2N3725-WN		
CP301-2N3439-CT	CP310-2N3439-CT		
CP303V-CMPT8099-CT	CP303X-CMPT8099-CT		
CP303V-CMPT8099-WN	CP303X-CMPT8099-WN		
CP305-MJE182-CT	CP325V-MJE182-CT		
CP314-MPS650-CT	CP314V-MPS650-CT		
CP316-2N5551-CT	CP336V-2N5551-CT		
CP316V-2N5551-CT	CP336V-2N5551-CT		
CP316V-2N5551-CTAN	N/A, Stock Only		
CP316V-2N5551-WN	CP336V-2N5551-WN		
CP317-2N2857-CT	N/A, Stock Only		
CP317-2N918-CT	N/A, Stock Only		
CP319-CZTA44HC-CT	CP212-CZTA44HC-CT		
CP319-TIP47-CT	CP212-TIP47-CT		
CP319-TIP50-CT	CP212-TIP50-CT		
CP324-2N7002-CM	N/A, Stock Only		
CP324-2N7002-CT	N/A, Stock Only		
CP324-2N7002-WN	N/A, Stock Only		
CP336V-2N5551-CTAN	CP336V-2N5551-CT		
CP353-2N3506-CT	CP353V-2N3506-CT		
CP512-2N4033-CT	CP705V-CZT4033-CT		
CP512-2N4033-WN	CP705V-CZT4033-WN		
CP517-BDX54C-WS	CP527-BDX54C-WR		
*** CONTINUED ***			

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.



PDN ID:	PDN00999
Notification Date:	8/03/15
Last Buy Date:	Varies
Last Shipment Date	Varies

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

	7	,
	Central Part Number	Replacement
	CP517-TIP126-CT	CP630-TIP127-CT
	CP517-2N6042-CT	CP527-2N6042-CT
	CP517-2N6053-CM	CP527-2N6053-CM
	CP517-2N6053-CT	CP527-2N6053-CT
	CP517-2N6296-CT	CP527-2N6296-CT
	CP517-2N6299-CT	CP527-2N6299-CT
	CP517-2N6299-WS	CP527-2N6299-WR
	CP517-2N6668-CT	CP527-2N6668-CT
	CP529-CMPT2907A-WN	N/A, Stock Only
	CP548-2N5116-WN	N/A, Stock Only
	CP555-2N4209-WN	CP742X-CM4209-WN
	CP559-2N2907A-WN	N/A, Stock Only
	CP560-MPSA92-CT	CP710V-MPSA92-CT
	CP560-MPSA92-WN	CP710V-MPSA92-WN
	CP560-2N6520-WN	CP710V-2N6520-WN
	CP584-2N5401-CTAN	N/A, Stock Only
	CP584-2N5401-WN	N/A, Stock Only
	CP587-2N3964-WN	N/A, Stock Only
	CP588-BCW70-CT	CP788X-BCW70-CT
	CP588-2N3799-WN	CP788X-2N3799-CT
	CP588-2N5087-CT	N/A, Stock Only
	CP588V-BC556B-WR	N/A, Stock Only
	CP588V-2N2605-CT	CP788X-2N2605-CT
	CP588V-2N3799-WN	N/A, Stock Only
	CP588V-2N5087-CT	CP788X-2N5087-CT
	CP591-2N2907A-CT	CP591X-2N2907A-CT
	CP591V-2N2907A-CT	CP591X-2N2907A-CT
	CP592-CMPT3906-CT	CP792V-CMPT3906-CT
	CP592-2N3251-CT	CP792V-2N3251-CT
	CP592-2N3906-WN	CP792V-2N3906-WN
	CP701-2N5416-CT	CP710V-2N5416-CT
	CP705-BC327-25-CT	N/A, Stock Only
	CP705-BC327-40-CT	N/A, Stock Only
	CP705-BC807-40-CT	N/A, Stock Only
	CP705-BD140-CT	N/A, Stock Only
	CP705-CZT4033-CT	CP705V-CZT4033-CT
	CP705-D41D11-CT	CP705V-D41D11-CT
	CP705-D41D11-CT200	CP705V-D41D11-CT200
	CP705-2N4356-CT	N/A, Stock Only
	CP705-2N4356-WN	N/A, Stock Only
	CP707-MPSA64-WN	CP727V-MPSA64-WN
	CP707-MPSU95-CT	CP727V-MPSU95-CT
	CP710-CMPTA94-CT	CP710V-CMPTA94-CT
< :	** CONTINUED ***	

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.



PDN ID:	PDN00999
Notification Date:	8/03/15
Last Buy Date:	
Last Shipment Date	Varies

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

Central Part Number	Replacement
CP710-MJE350-CT	N/A, Stock Only
CP710-MPSA92-CT	CP710V-MPSA92-CT
CP714-MPS750-CT	CP714V-MPS750-CT
CP714-MPS751-CT	N/A, Stock Only
CP714-MPS751-WN	N/A, Stock Only
CP716-CMPT5401-CM	N/A, Stock Only
CP716-CMPT5401-CT	N/A, Stock Only
CP716-2N5401-CTAN	N/A, Stock Only
CP716V-CMPT5401-CM	N/A, Stock Only
CP716V-2N3635-CM	CP736V-2N3635-CM
CP716V-2N3635-CT	CP736V-2N3635-CT
CP716V-2N5401-CT	CP736V-2N5401-CT
CP716V-2N5401-CTAN	CP736V-2N5401-CTAN
CP716V-2N5401-WN	CP736V-2N5401-WN
CP792V-2N3906-CT	CP792V-CMPT3906-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.

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.



PDN ID:	PDN01104
Notification Date:	4/22/19
Last Buy Date:	10/22/19
Last Shipment Date	4/22/20

Summary: The CP548-2N5116-CT has been discontinued and is now classified as End of Life (EOL).

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
CP548-2N5116-CT	N/A, Stock Only

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.

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.