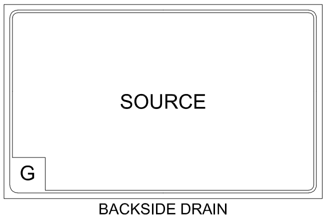
Central
Semiconductor Corp.
www.centralsemi.com

CP406-CWDM3011N
N-Channel MOSFET Die
Enhancement-Mode

The CP406-CWDM3011N is a silicon N-Channel MOSFET designed for high speed pulsed amplifier and driver applications.



MECHANICAL SPECIFICATIONS:

Die Size	63.8 x 38.9 MILS
Die Thickness	5.5 MILS
Gate Bonding Pad Area	7.1 x 7.1 MILS
Source Bonding Pad Area	60.4 x 35.6 MILS
Top Side Metalization	Al-Cu - 40,000Å
Back Side Metalization	Ti/Ni/Ag - 1,000Å/3,000Å/10,000Å
Scribe Alley Width	2.36 MILS
Wafer Diameter	8 INCHES
Gross Die Per Wafer	17,312

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

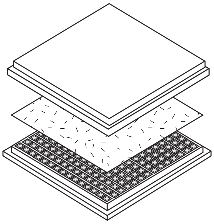
	SYMBOL		UNITS
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	20	V
Continuous Drain Current	I_D	9.93	A
Maximum Pulsed Drain Current	I_{DM}	37.44	A
Power Dissipation	P_D	1.92	W
Power Dissipation (T_A=75°C)	P_D	1.15	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 to +150	°C
Thermal Resistance	Θ_{JA}	65	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{GSSF}, I_{GSSR}	V_{GS}=20V, V_{DS}=0			100	nA
I_{DSS}	V_{DS}=30V, V_{GS}=0			1.0	μA
BV_{DSS}	V_{GS}=0, I_D=250μA	30			V
$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250μA	1.0	1.48	3.0	V
V_{SD}	V_{GS}=0, I_S=1.0A			1.5	V
$r_{DS(ON)}$	V_{GS}=10V, I_D=1.0A		5.66	13	mΩ
$r_{DS(ON)}$	V_{GS}=4.5V, I_D=1.0A		9.29	18	mΩ

R0 (7-April 2020)

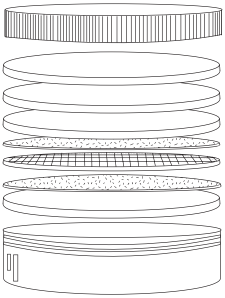
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

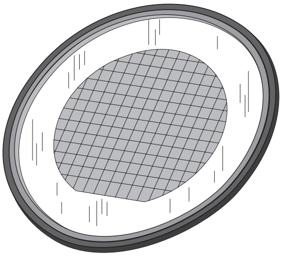
CT: Singulated die in tray (waffle) pack.
(example: CP211-<u>PART NUMBER</u>-CT)

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

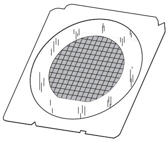
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-<u>PART NUMBER</u>-WN)



SAWN WAFER ON PLASTIC RING

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

CONTACT US

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