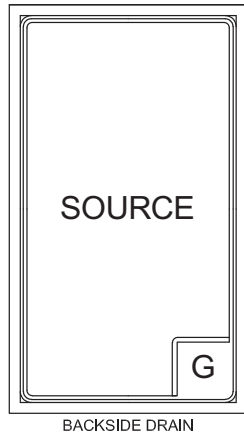


The CP805-CXDM4060P medium power P-Channel MOSFET is optimized for power management and drive circuit applications where energy efficiency is a critical design element.



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 | 1.97 MILS |
| Wafer Diameter | 8 INCHES |
| Gross Die Per Wafer | 17,312 |

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

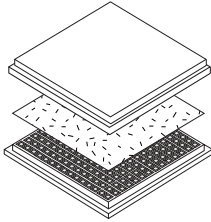
| | SYMBOL | | UNITS |
|---|----------------|-------------|------------------|
| Drain-Source Voltage | V_{DS} | 40 | V |
| Gate-Source Voltage | V_{GS} | 20 | V |
| Continuous Drain Current (Steady State) | I_D | 6.4 | A |
| Maximum Pulsed Drain Current, $t_p=10\mu\text{s}$ | I_{DM} | 24.4 | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|--------------|--|-----|-------|-----|------------------|
| I_{GSS} | $V_{GS}=20\text{V}, V_{DS}=0$ | | | 100 | nA |
| I_{DSS} | $V_{DS}=40\text{V}, V_{GS}=0$ | | | 1.0 | μA |
| BV_{DSS} | $V_{GS}=0, I_D=250\mu\text{A}$ | 40 | | | V |
| $V_{GS(th)}$ | $V_{GS}=V_{DS}, I_D=250\mu\text{A}$ | 1.0 | | 3.0 | V |
| V_{SD} | $V_{GS}=0, I_S=1.0\text{A}$ | | | 1.5 | V |
| $r_{DS(ON)}$ | $V_{GS}=10\text{V}, I_D=1.0\text{A}$ | | | 31 | $\text{m}\Omega$ |
| $r_{DS(ON)}$ | $V_{GS}=4.5\text{V}, I_D=1.0\text{A}$ | | | 42 | $\text{m}\Omega$ |
| C_{iss} | $V_{DS}=25\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | | 1273 | | pF |
| C_{oss} | $V_{DS}=25\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | | 100.5 | | pF |
| C_{rss} | $V_{DS}=25\text{V}, V_{GS}=0, f=1.0\text{MHz}$ | | 83.1 | | pF |
| $Q_{g(tot)}$ | $V_{DS}=32\text{V}, V_{GS}=4.5\text{V}, I_D=6.0\text{A}$ | | 16 | | nC |
| Q_{gs} | $V_{DS}=32\text{V}, V_{GS}=4.5\text{V}, I_D=6.0\text{A}$ | | 2.7 | | nC |
| Q_{gd} | $V_{DS}=32\text{V}, V_{GS}=4.5\text{V}, I_D=6.0\text{A}$ | | 6.3 | | nC |
| t_{on} | $V_{DD}=20\text{V}, V_{GS}=10\text{V}, I_D=1.0\text{A}$ $R_G=3.3\Omega, R_L=20\Omega$ | | 13.1 | | ns |
| t_r | | | 5.2 | | ns |
| t_{off} | | | 55.7 | | ns |
| t_f | | | 10.7 | | ns |

R1 (17-February 2021)

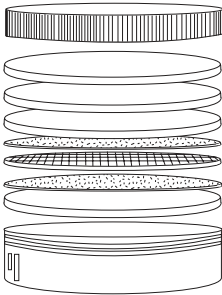
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

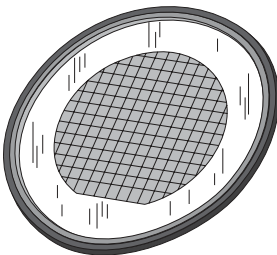
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

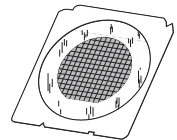
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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.centrasemi.com/bdspecs

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Central's operations team provides the highest level of support to insure product is delivered on-time.

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- 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)
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- 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).

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