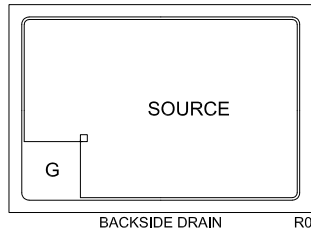


CP387X-CWDM305N

N-Channel MOSFET Die

Enhancement-Mode

The CP387X-CWDM305N is a high current silicon N-Channel MOSFET designed for high speed pulsed amplifier and driver applications.



MECHANICAL SPECIFICATIONS:

Die Size	37.8 x 26 MILS
Die Thickness	5.5 MILS
Gate Bonding Pad Size	7.3 x 7.3 MILS
Source Bonding Pad Size	34 x 22.2 MILS
Top Side Metalization	Al – 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	45,000

MAXIMUM RATINGS: (T_A=25°C)

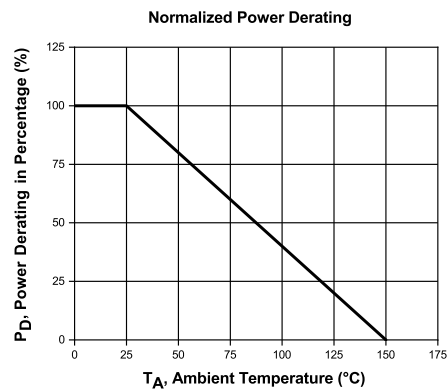
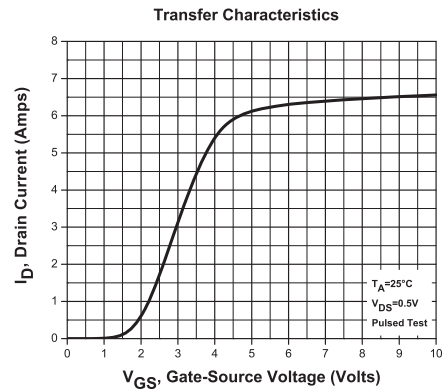
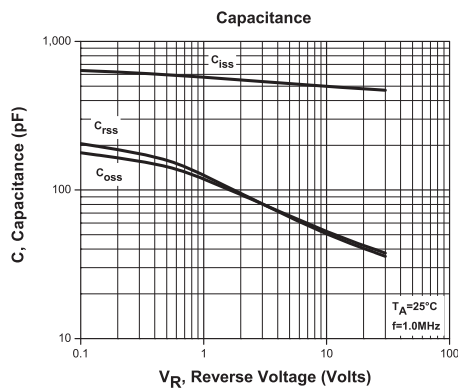
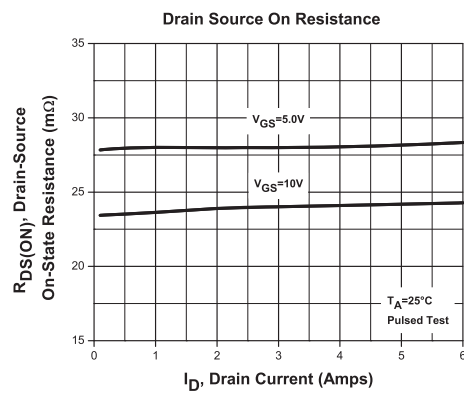
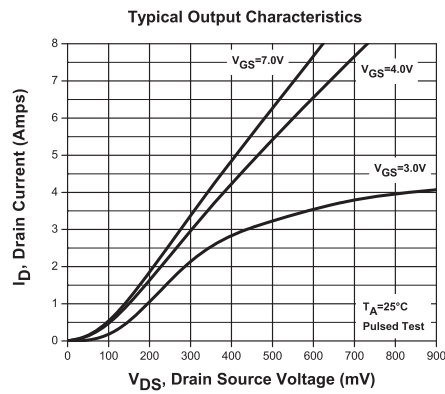
	SYMBOL		UNITS
Drain-Source Voltage	V _{DS}	30	V
Gate-Source Voltage	V _{GS}	20	V
Continuous Drain Current (Steady State)	I _D	5.8	A
Maximum Pulsed Drain Current, tp=10μs	I _{DM}	23.2	A
Operating and Storage Junction Temperature	T _J , T _{stg}	-55 to +150	°C

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		3.0	V
r _{DS(ON)}	V _{GS} =10V, I _D =2.9A		0.024	0.030	Ω
r _{DS(ON)}	V _{GS} =5.0V, I _D =2.9A		0.028	0.034	Ω
g _{FS}	V _{DS} =5.0V, I _D =5.8A		12		S
C _{rss}	V _{DS} =10V, V _{GS} =0, f=1.0MHz		50	54	pF
C _{iss}	V _{DS} =10V, V _{GS} =0, f=1.0MHz		500	560	pF
C _{oss}	V _{DS} =10V, V _{GS} =0, f=1.0MHz		52	90	pF
Q _{g(tot)}	V _{DD} =15V, V _{GS} =5.0V, I _D =5.8A		4.2	6.3	nC
Q _{gs}	V _{DD} =15V, V _{GS} =5.0V, I _D =5.8A		0.9	1.4	nC
Q _{gd}	V _{DD} =15V, V _{GS} =5.0V, I _D =5.8A		1.4	2.1	nC
t _{on}	V _{DD} =15V, I _D =5.8A, R _G =10Ω		6.5		ns
t _{off}	V _{DD} =15V, I _D =5.8A, R _G =10Ω		8.5		ns

CP387X-CWDM305N

Typical Electrical Characteristics



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

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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