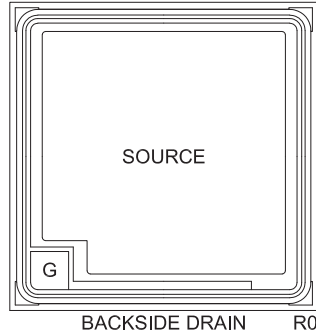


CP343X-CXDM1002N

N-Channel MOSFET Die

Enhancement-Mode

The CP343X-CXDM1002N is a high voltage silicon N-Channel MOSFET designed for high speed pulsed amplifier and driver applications.



MECHANICAL SPECIFICATIONS:

Die Size	55 x 55 MILS
Die Thickness	5.5 MILS
Gate Bonding Pad Size	7.3 x 7.3 MILS
Source Bonding Pad Size	43 x 43 MILS
Top Side Metalization	Al – 30,000Å
Back Side Metalization	Ti/Ni/Ag – 1,000Å/3,000Å/10,000Å
Scribe Alley Width	2.76 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	7,774

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Drain-Source Voltage	V _{DS}	100	V
Gate-Source Voltage	V _{GS}	20	V
Continuous Drain Current (Steady State)	I _D	2.0	A
Maximum Pulsed Drain Current, tp=10μs	I _{DM}	7.0	A
Operating and Storage Junction Temperature	T _J , T _{stg}	-55 to +150	°C

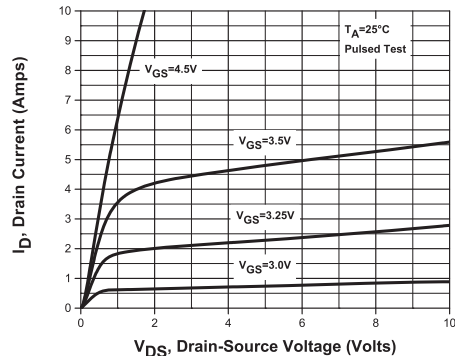
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{GSSF} , I _{GSSR}	V _{GS} =20V, V _{DS} =0			15	μA
I _{DSS}	V _{DS} =100V, V _{GS} =0			100	nA
BV _{DSS}	V _{GS} =0, I _D =250μA	100			V
V _{GS(th)}	V _{GS} =V _{DS} , I _D =250μA	1.5		2.5	V
V _{SD}	V _{GS} =0, I _S =1.0A			1.1	V
r _{DS(ON)}	V _{GS} =10V, I _D =2.0A			300	mΩ
r _{DS(ON)}	V _{GS} =4.5V, I _D =1.0A			350	mΩ
C _{rss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz		48		pF
C _{iss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz		550		pF
C _{oss}	V _{DS} =25V, V _{GS} =0, f=1.0MHz		45		pF
Q _{g(tot)}	V _{DS} =80V, V _{GS} =5.0V, I _D =2.0A		6.0		nC
Q _{gs}	V _{DS} =80V, V _{GS} =5.0V, I _D =2.0A		1.2		nC
Q _{gd}	V _{DS} =80V, V _{GS} =5.0V, I _D =2.0A		3.0		nC
t _{on}	V _{DD} =50V, V _{GS} =5.0V, I _D =3.5A		32		ns
t _{off}	R _G =4.7Ω		50		ns

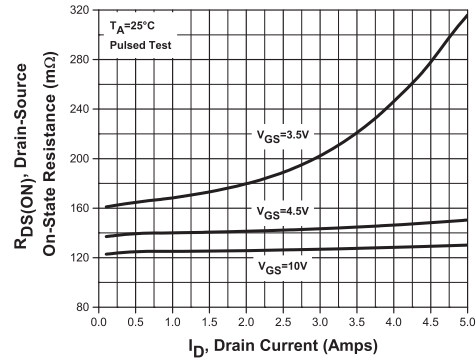
CP343X-CXDM1002N

Typical Electrical Characteristics

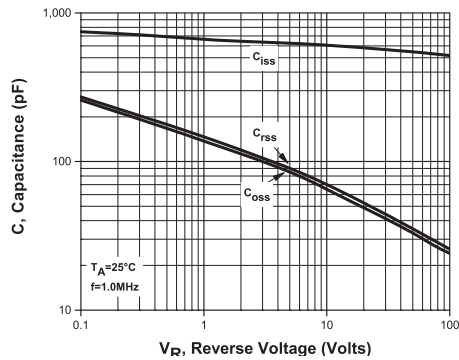
Output Characteristics



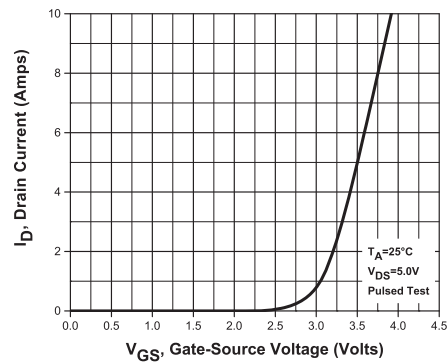
Drain Source On Resistance



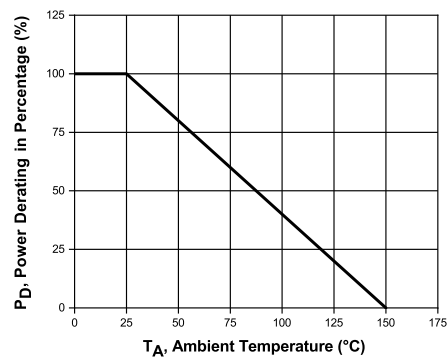
Capacitance



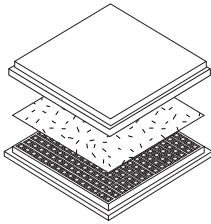
Transfer Characteristics



Normalized Power Derating



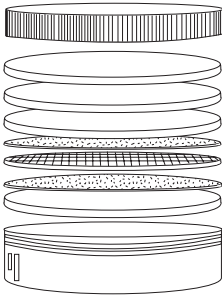
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

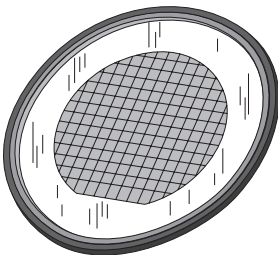
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

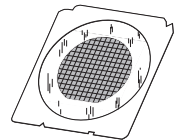
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.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: www.centrasemi.com/terms