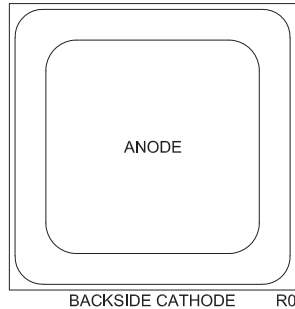


CPD18-CUDD8-04

Ultra Fast Rectifier Die

8.0 Amp, 400 Volt

The CPD18-CUDD8-04 is a silicon 8.0 Amp, 400 Volt ultra fast recovery rectifier die designed for commercial, industrial, entertainment, and automotive applications where ultra fast switching speeds are required.



MECHANICAL SPECIFICATIONS:

Die Size	98 x 98 MILS
Die Thickness	12.5 MILS
Anode Bonding Pad Size	73 x 73 MILS
Top Side Metalization	Ni/Au – 3,000Å/1,350Å
Back Side Metalization	Ni/Au – 3,000Å/1,350Å
Scribe Alley Width	3.94 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	1,056

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

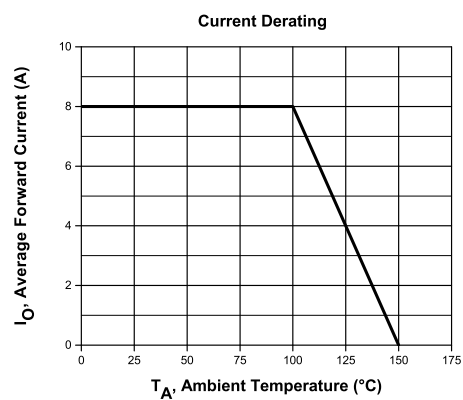
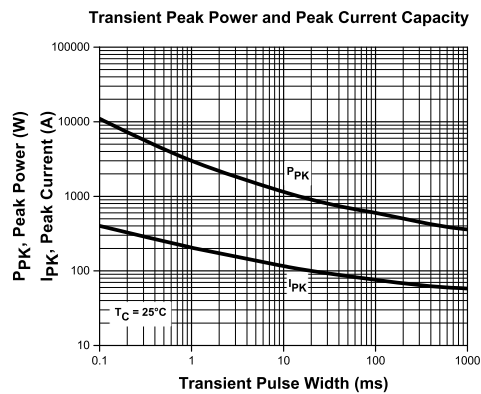
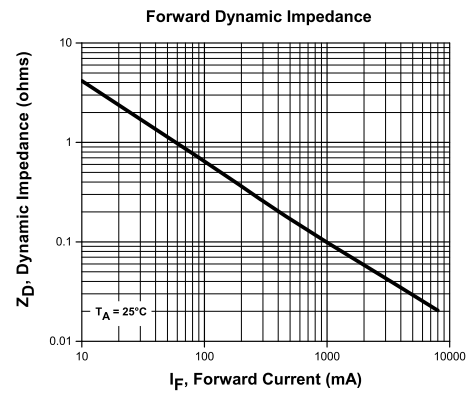
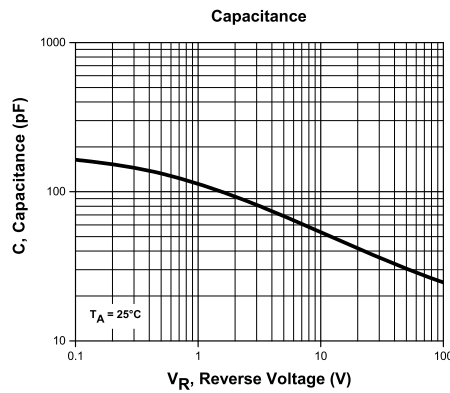
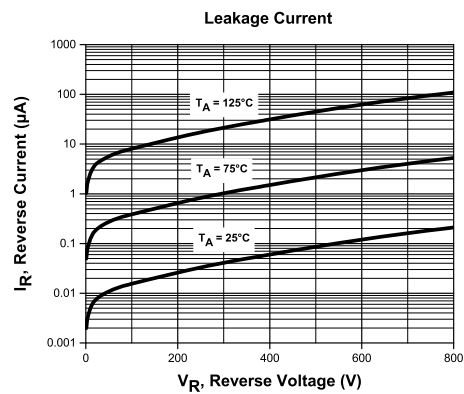
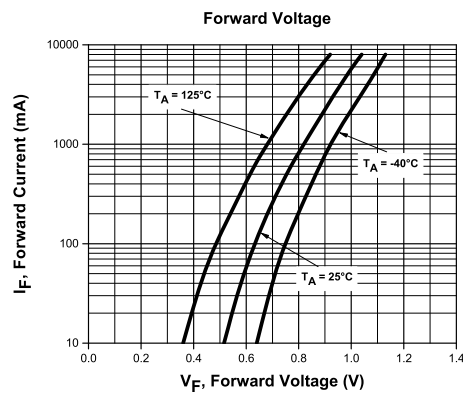
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
DC Blocking Voltage	V_R	400	V
RMS Reverse Voltage	$V_{R(RMS)}$	280	V
Average Forward Current ($T_A=100^{\circ}\text{C}$)	I_O	8.0	A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}	125	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$

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

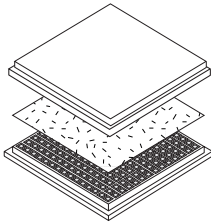
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=400\text{V}$		10	μA
V_F	$I_F=8.0\text{A}$		1.3	V
C_J	$V_R=10\text{V}, f=1.0\text{MHz}$		60	pF
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$		25	ns

CPD18-CUDD8-04

Typical Electrical Characteristics



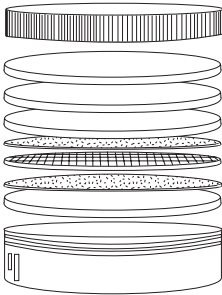
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

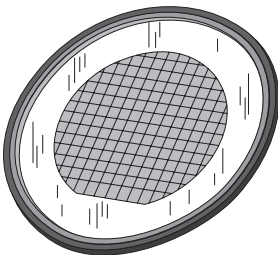
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

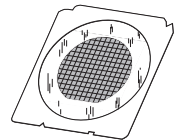
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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