

CPD20-CMR5H-06

HyperFast Rectifier Die

5.0 Amp, 600 Volt

The CPD20-CMR5H-06 is a silicon HyperFast rectifier designed for motor control and power factor correction applications where extremely fast switching is required.

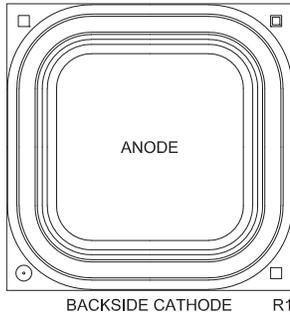
FEATURES:

- HyperFast recovery time
- High current
- High voltage

APPLICATIONS:

- Power factor correction
- Motor control

**HYPER
FAST**



MECHANICAL SPECIFICATIONS:

Die Size	78.7 x 78.7 MILS
Die Thickness	10.2 MILS
Die Passivation	Glass
Anode Bonding Pad Size	50.8 x 50.8 MILS
Top Side Metalization	Al/Ti/Ni/Au – 13,500Å
Back Side Metalization	Al/Ti/Ni/Au – 13,500Å
Scribe Alley Width	3.7 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	1,712

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

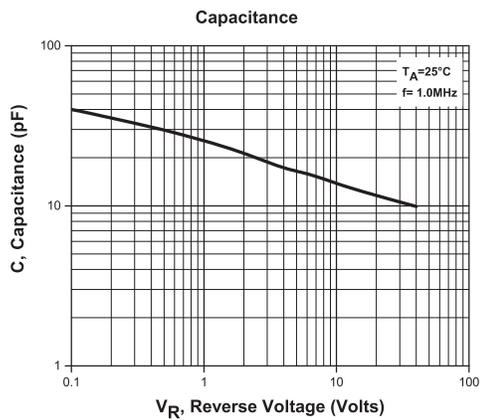
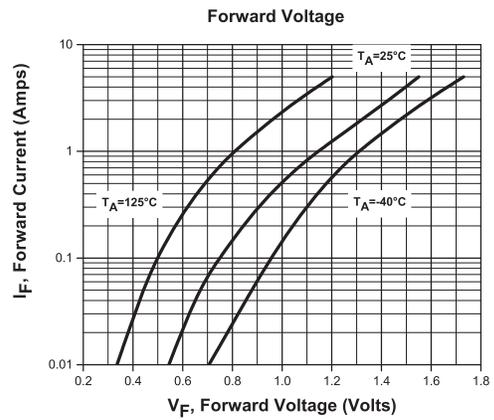
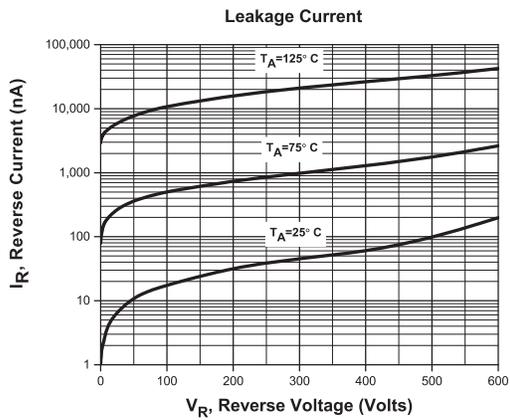
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
DC Blocking Voltage	V_R	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	420	V
Average Forward Current	I_O	5.0	A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}	100	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

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

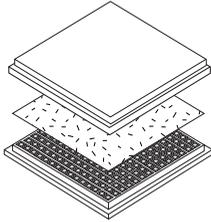
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=600\text{V}$			1.0	μA
BV_R	$I_R=100\mu\text{A}$	600			V
V_F	$I_F=5.0\text{A}$			2.0	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		17		pF
t_{rr}	$I_F=5.0\text{A}, V_R=400\text{V}, di/dt=200\text{A}/\mu\text{s}$			22	ns

CPD20-CMR5H-06

Typical Electrical Characteristics



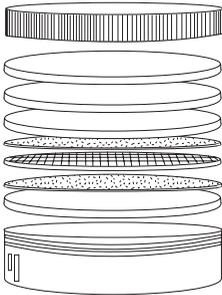
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

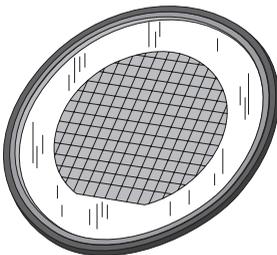
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

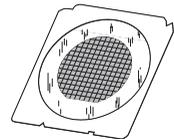
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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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