

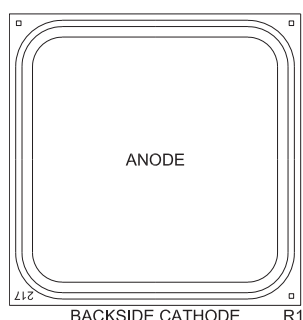
The CPD31X Schottky die is optimized for alternative energy applications. The 6 mil thick die provides an ultra low profile that is readily attached via standard die attach methods. Parametrically, the device is extremely energy efficient as a result of low forward and reverse conduction losses.

#### FEATURES:

- Low forward voltage at 10 Amps forward current
- Low reverse leakage current
- Low profile geometry
- Metalization suitable for standard die attach technologies
- Top metalization optimized for solder process

#### APPLICATIONS:

The CPD31X is optimized for use as a by-pass rectifier in low profile solar (PV) panels.



#### MECHANICAL SPECIFICATIONS:

Die Size	85 x 85 MILS
Die Thickness	5.9 MILS $\pm$ 0.8 MILS
Die Passivation	SiN
Anode Bonding Pad Area	78 x 78 MILS
Top Side Metalization	Al/Ni/Au – 30,000Å/4,000Å/1,500Å
Back Side Metalization	Ti/Ni/Au – 1,600Å/5,550Å/1,500Å
Scribe Alley Width	3.15 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	2,260

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	60	V
DC Blocking Voltage	$V_R$	60	V
Average Forward Current	$I_O$	10	A
Peak Forward Surge Current (tp=8.3ms)	$I_{FSM}$	250	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
$I_R$	$V_R=60\text{V}$		75	500	$\mu\text{A}$
$I_R$	$V_R=60\text{V}, T_A=100^\circ\text{C}$			50	mA
$BV_R$	$I_R=0.4\text{mA}$	60			V
$V_F$	$I_F=5.0\text{A}$		0.49		V
$V_F$	$I_F=10\text{A}$		0.59	0.67	V

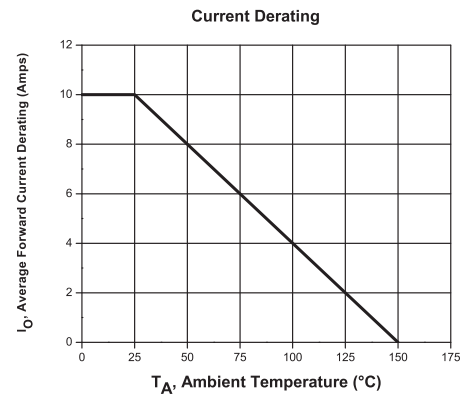
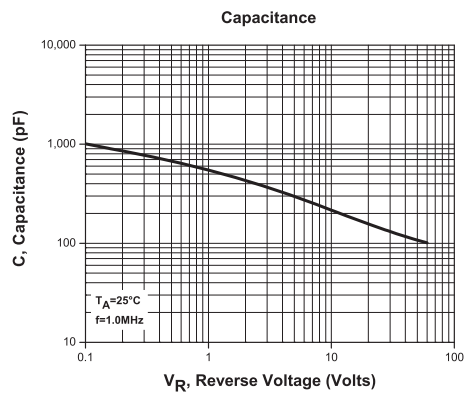
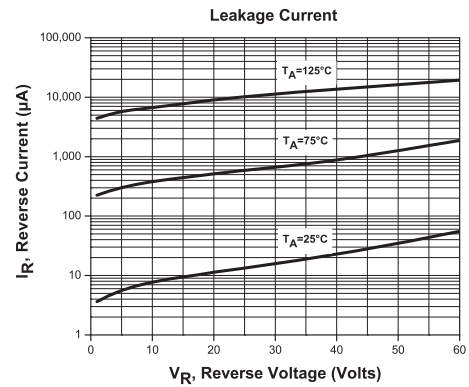
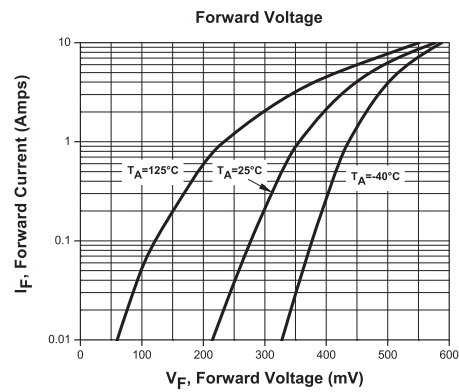
#### PACKING OPTIONS:

- CPD31X-WN: Full Wafer
- CPD31X-WR: Sawn Wafer on Plastic Ring

R3 (17-October 2011)

# CPD31X

## Typical Electrical Characteristics



R3 (17-October 2011)

## BARE DIE PACKING OPTIONS

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### 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)

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### UNSAWN WAFER

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

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### 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](http://www.centrasemi.com/bdspecs)**

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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

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### 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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### 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](http://www.centrasemi.com)

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[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

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