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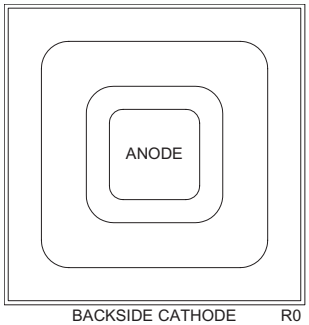
# CPD83V-1N3064

## High Speed Switching Diode Die

## 75mA, 75 Volt

The CPD83V-1N3064 is a silicon high speed switching diode ideal for all types of commercial, industrial, entertainment, and computer applications.




BACKSIDE CATHODE R0

**MECHANICAL SPECIFICATIONS:**

| | |
|---|---|
| Die Size | 11 x 11 MILS |
| Die Thickness | 7.1 MILS |
| Anode Bonding Pad Size | 3.35 x 3.35 MILS |
| Top Side Metalization | Al – 30,000Å |
| Back Side Metalization | Au-As – 9,000Å |
| Scribe Alley Width | 2.3 MILS |
| Wafer Diameter | 5 INCHES |
| Gross Die Per Wafer | 137,880 |

| **MAXIMUM RATINGS:** ($T_A$=25°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 75 | V |
| Peak Working Reverse Voltage | $V_{RWM}$ | 50 | V |
| Average Forward Current | $I_O$ | 75 | mA |
| Continuous Forward Current | $I_F$ | 115 | mA |
| Peak Repetitive Forward Current | $I_{FRM}$ | 225 | mA |
| Peak Forward Surge Current, tp=1.0μs | $I_{FSM}$ | 2.0 | A |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +150 | °C |

**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C)

| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **MAX** | **UNITS** |
|---|---|---|---|---|
| $I_R$ | $V_R$=50V | | 100 | nA |
| $BV_R$ | $I_R$=5.0μA | 75 | | V |
| $V_F$ | $I_F$=250μA | 0.505 | 0.575 | V |
| $V_F$ | $I_F$=1.0mA | 0.55 | 0.65 | V |
| $V_F$ | $I_F$=2.0mA | 0.61 | 0.71 | V |
| $V_F$ | $I_F$=10mA | | 1.0 | V |
| $C_J$ | $V_R$=0, f=1.0MHz | | 2.0 | pF |
| $t_{rr}$ | $V_R$=1.0V, $I_F$=10mA, $R_L$=100Ω | | 4.0 | ns |

# CPD83V-1N3064
## Typical Electrical Characteristics

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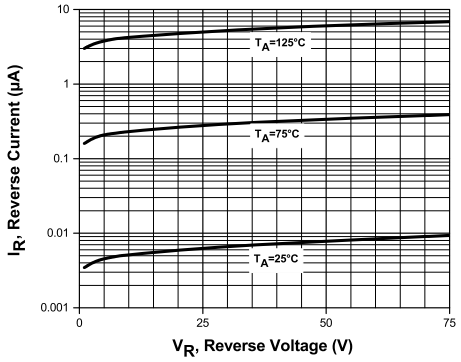
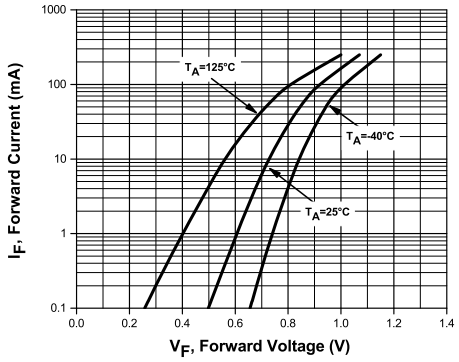
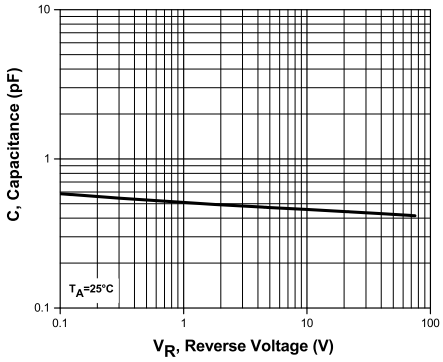
**Leakage Current**



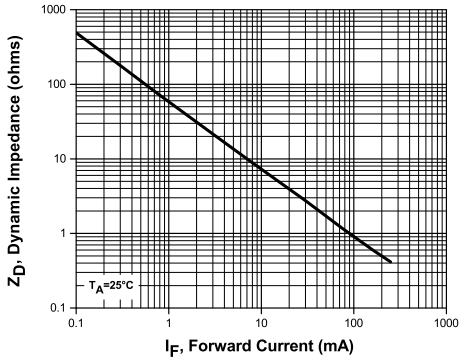

**Forward Voltage**



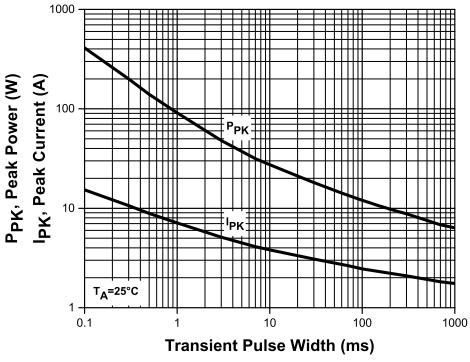

**Capacitance**



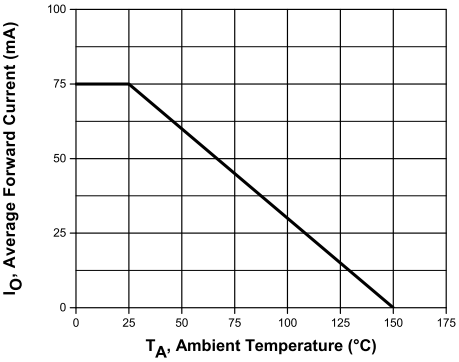

**Forward Dynamic Impedance**




**Transient Peak Power and Peak Current Capacity**




**Current Derating**




R0 (16-September 2016)

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## Typical Electrical Characteristics

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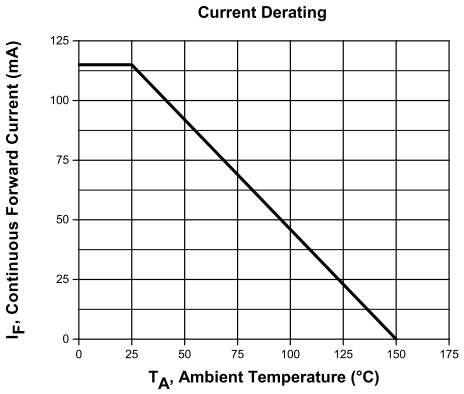
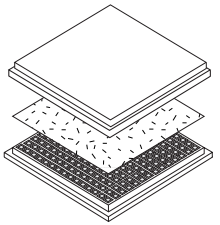


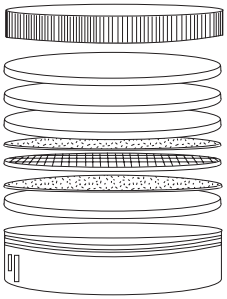
# BARE DIE PACKING OPTIONS



## BARE DIE IN TRAY (WAFFLE) PACK

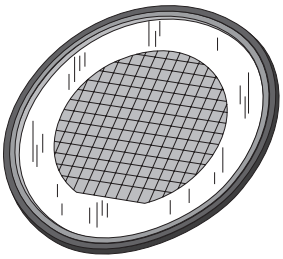
**CT**: Singulated die in tray (waffle) pack.
**(example: CP211-PART NUMBER-CT)**

**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)**



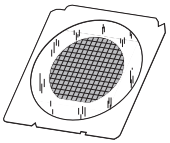
## UNSAWN WAFER

**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.centralsemi.com/bdspecs**

R2 (3-April 2017)

## 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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