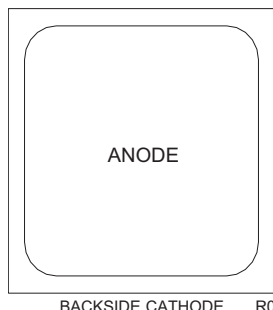


CPD16-CMR1U-06M

Ultra Fast Rectifier Die

1.0 Amp, 600 Volt

The CPD16-CMR1U-06M is a silicon 1.0 Amp, 600 Volt ultra fast recovery rectifier ideal for all types of commercial, industrial, entertainment, and computer applications.



MECHANICAL SPECIFICATIONS:

| | |
|------------------------|-----------------------|
| Die Size | 51 x 51 MILS |
| Die Thickness | 14 MILS |
| Anode Bonding Pad Size | 34 x 34 MILS |
| Top Side Metalization | Ni/Au – 5,000Å/2,000Å |
| Back Side Metalization | Ni/Au – 5,000Å/2,000Å |
| Scribe Alley Width | 2.0 MILS |
| Wafer Diameter | 4 INCHES |
| Gross Die Per Wafer | 4,250 |

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

| | 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 | 1.0 | A |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$ | I_{FSM} | 30 | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^{\circ}\text{C}$ |

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

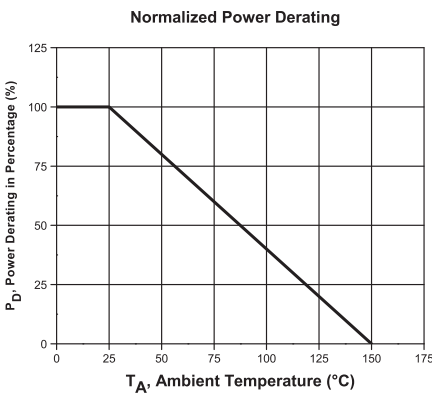
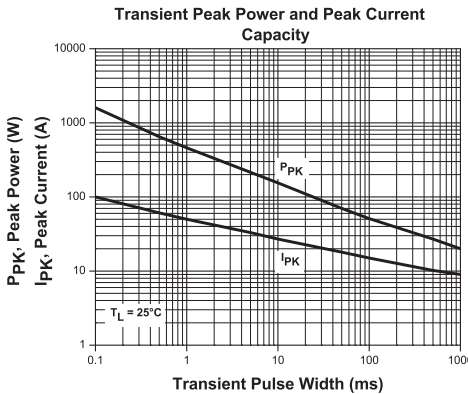
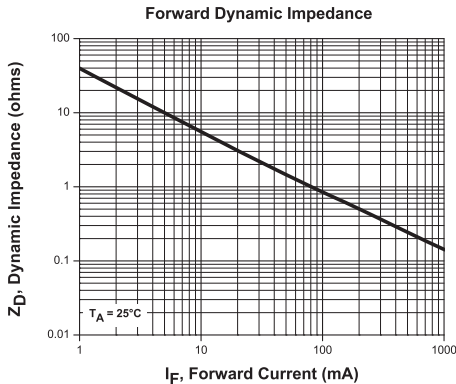
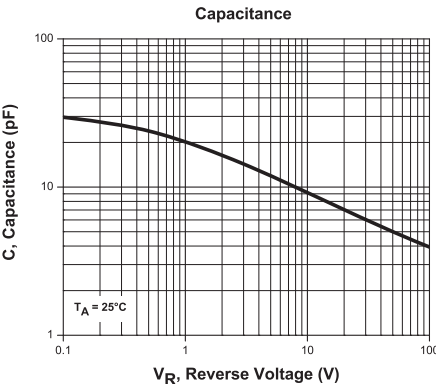
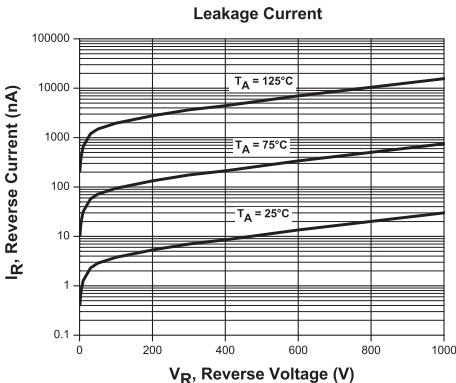
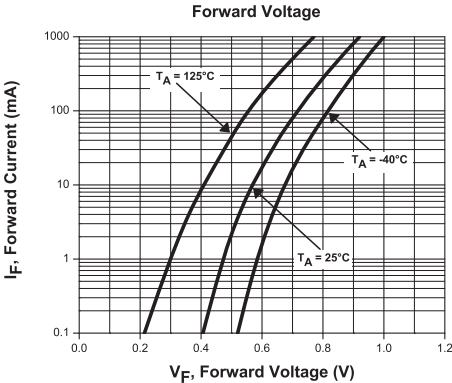
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|---|-----|-----|---------------|
| I_R | $V_R=600\text{V}$ | | 5.0 | μA |
| V_F | $I_F=1.0\text{A}$ | | 1.4 | V |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ | | 75 | ns |

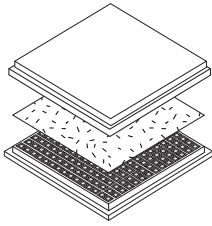
PACKING OPTIONS:

- CPD16-CMR1U-06M-CT: Singulated die in waffle pack; 400 die per tray.
- CPD16-CMR1U-06M-WN: Full wafer, unsawn, 100% tested with reject die inked.
- CPD16-CMR1U-06M-WR: Full wafer, sawn and mounted on plastic ring, 100% tested with reject die inked.

CPD16-CMR1U-06M

Typical Electrical Characteristics

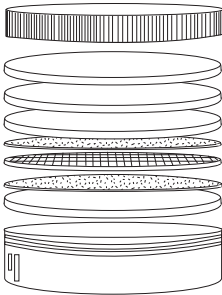




BARE DIE IN TRAY (WAFFLE) PACK

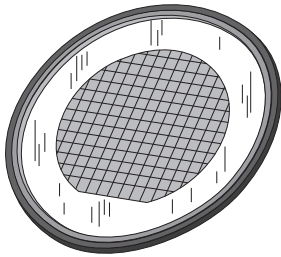
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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)



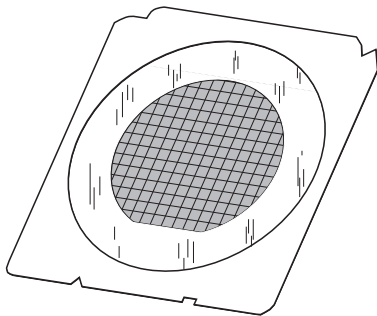
UNSAWN WAFER

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)



SAWN WAFER ON METAL FRAME

WS: Full wafer, sawn and mounted on metal frame, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WS)

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

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