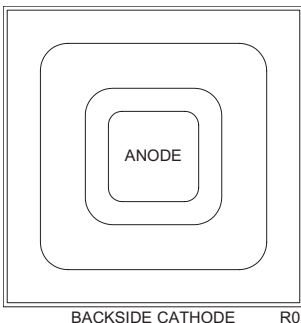


CPD83V-1N4153

High Speed Switching Diode Die

0.15 Amp, 75 Volt

The CPD83V-1N4153 is a silicon high speed switching diode ideal for all types of commercial, industrial, entertainment, and computer applications.



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 – 12,000Å
Scribe Alley Width	2.3 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	142,056

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

Peak Repetitive Reverse Voltage

SYMBOL

V_{RRM}

75

UNITS

V

Peak Working Reverse Voltage

V_{RWM}

50

V

Average Forward Current

I_O

150

mA

Peak Forward Surge Current, $t_p=1.0\mu\text{s}$

I_{FSM}

1.0

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

$V_R=50\text{V}$

50

nA

BV_R

$I_R=5.0\mu\text{A}$

75

V

V_F

$I_F=0.1\text{mA}$

490

550

mV

V_F

$I_F=0.25\text{mA}$

530

590

mV

V_F

$I_F=1.0\text{mA}$

590

670

mV

V_F

$I_F=2.0\text{mA}$

620

700

mV

V_F

$I_F=10\text{mA}$

700

810

mV

V_F

$I_F=20\text{mA}$

740

880

mV

C_J

$V_R=0, f=1.0\text{MHz}$

2.0

pF

t_{rr}

$I_F=10\text{mA}, I_{RM}=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$

4.0

ns

t_{rr}

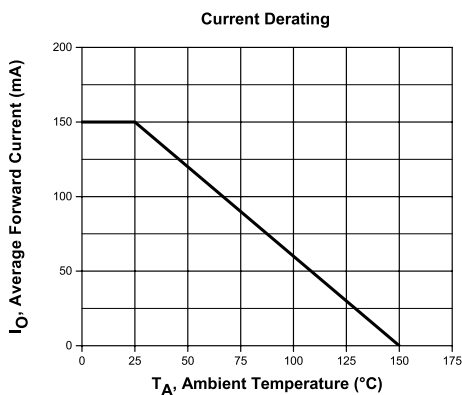
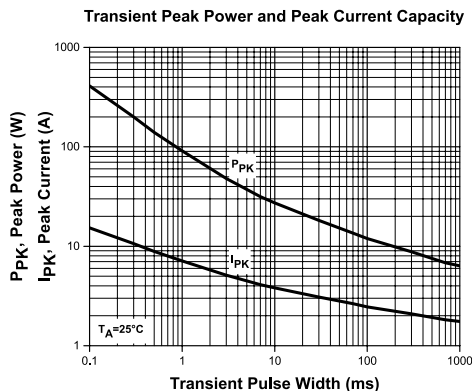
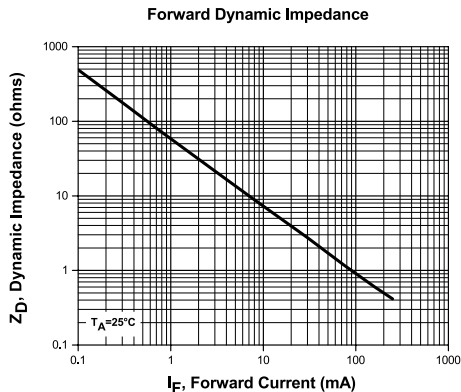
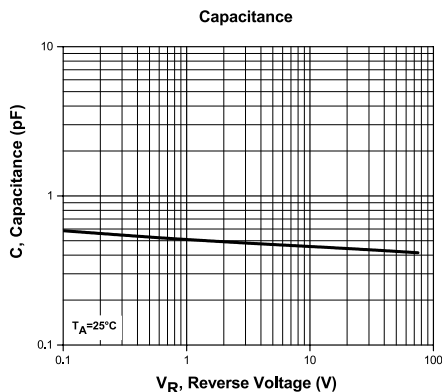
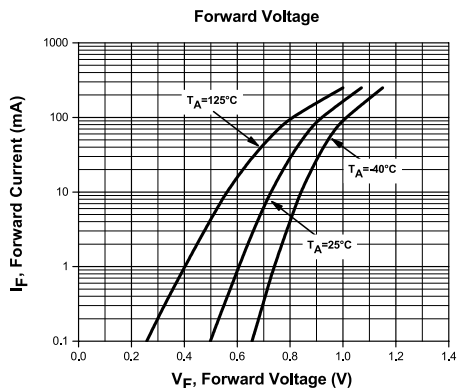
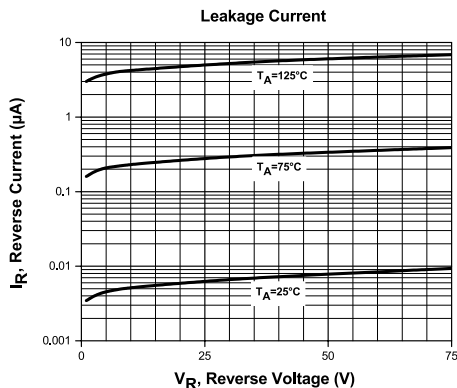
$I_F=10\text{mA}, I_{RM}=6\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$

2.0

ns

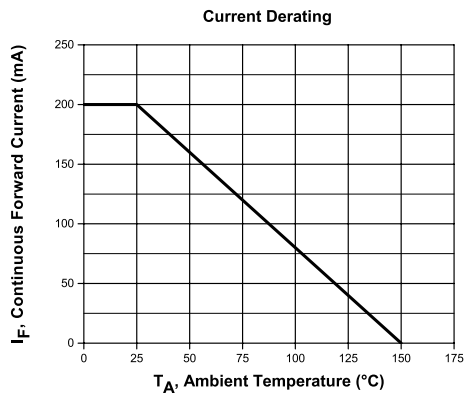
CPD83V-1N4153

Typical Electrical Characteristics

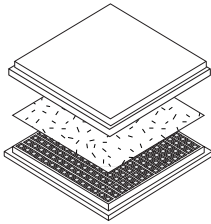


CPD83V-1N4153

Typical Electrical Characteristics



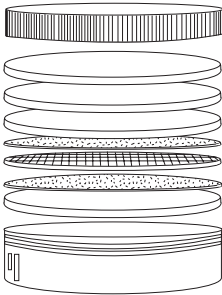
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

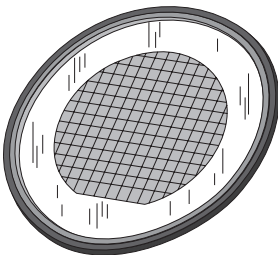
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

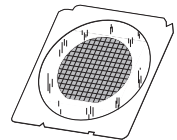
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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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