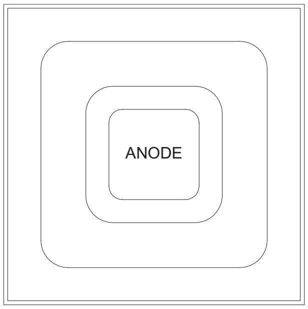
Central Semiconductor Corp.
www.centralsemi.com

CPD83V-BAS16

High Speed Switching Diode Die
0.15 Amp, 75 Volt

The CPD83V-BAS16 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}	75	V
Average Forward Current	I_O	150	mA
Continuous Forward Current	I_F	200	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)

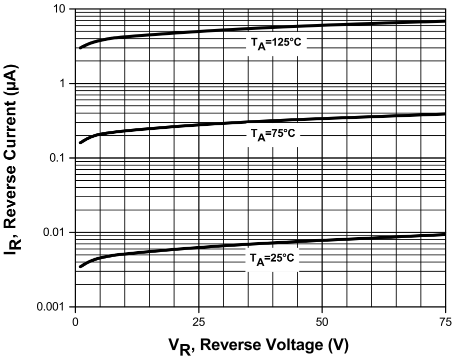
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_R	V_R=75V		1.0	μA
V_F	I_F=1.0mA		0.715	V
V_F	I_F=10mA		0.855	V
V_F	I_F=50mA		1.0	V
V_F	I_F=150mA		1.25	V
C_J	V_R=0, f=1.0MHz		4.0	pF
t_{rr}	V_R=6.0V, I_F=10mA, I_{rr}=1.0mA, R_L=100Ω		6.0	ns

R0 (16-September 2016)

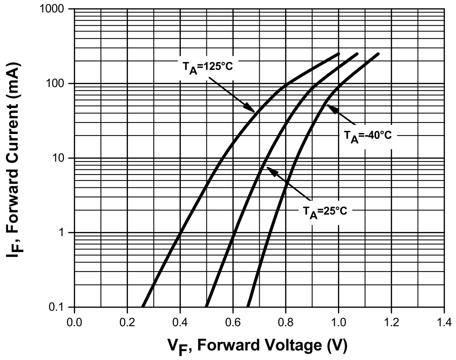
CPD83V-BAS16

Typical Electrical Characteristics

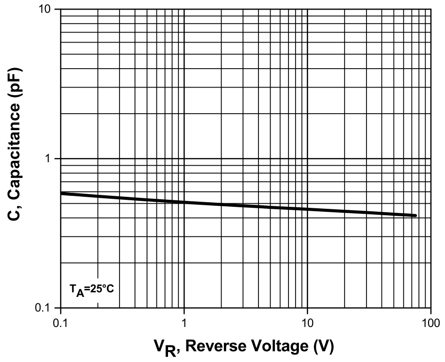
Leakage Current



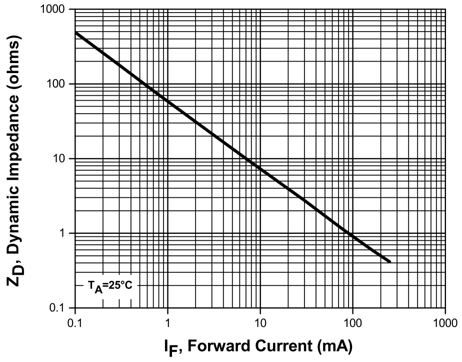
Forward Voltage



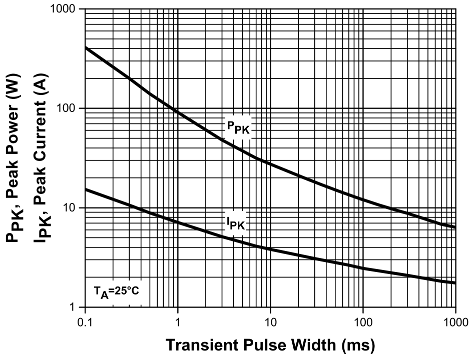
Capacitance



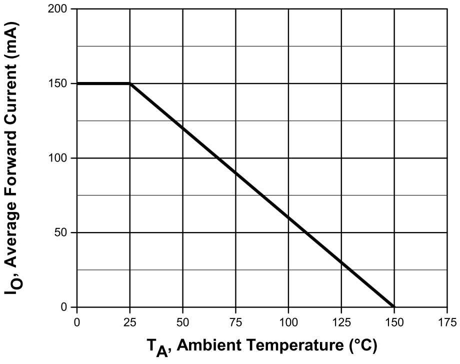
Forward Dynamic Impedance



Transient Peak Power and Peak Current Capacity

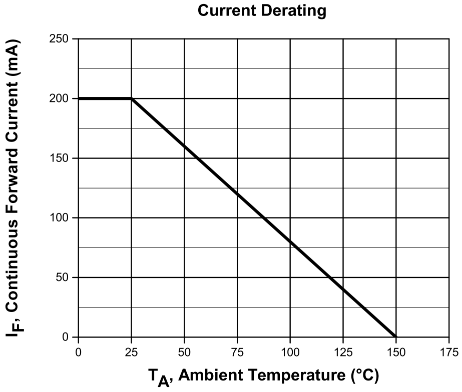


Current Derating

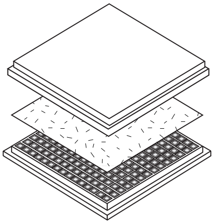


CPD83V-BAS16

Typical Electrical Characteristics



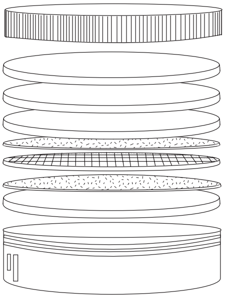
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

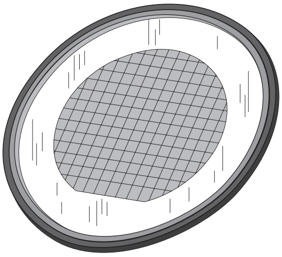
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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)



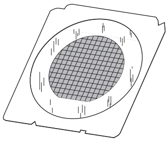
UNSAWN WAFER

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.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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