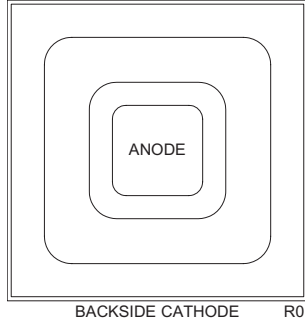


# CPD83V-1N4454

## High Speed Switching Diode Die

### 0.15 Amp, 75 Volt

The CPD83V-1N4454 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 – 9,000Å
Scribe Alley Width	2.3 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	137,880

#### MAXIMUM RATINGS: (T<sub>A</sub>=25°C)

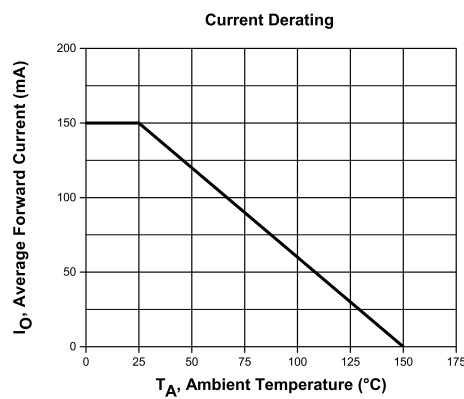
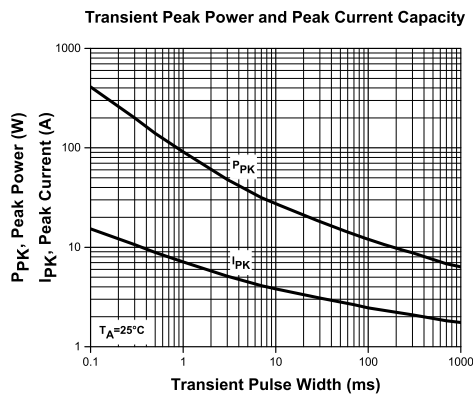
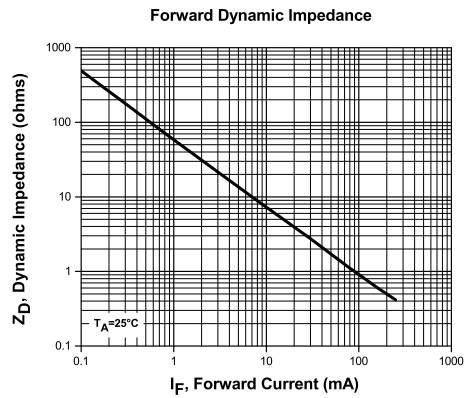
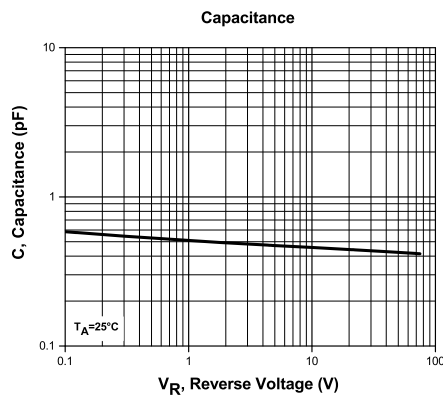
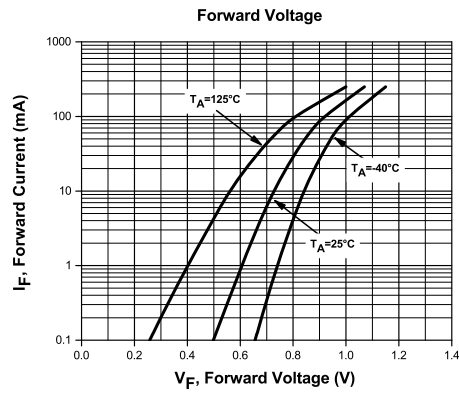
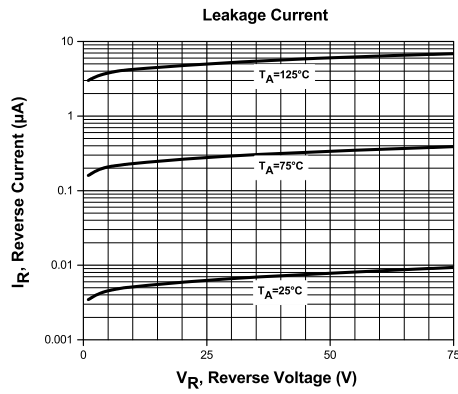
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	75	V
Average Forward Current	I <sub>O</sub>	150	mA
Continuous Forward Current	I <sub>F</sub>	200	mA
Peak Forward Surge Current, tp=1.0µs	I <sub>FSM</sub>	4.0	A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

#### ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =50V		100	nA
BV <sub>R</sub>	I <sub>R</sub> =5.0µA	75		V
V <sub>F</sub>	I <sub>F</sub> =10mA		1.0	V
C <sub>J</sub>	V <sub>R</sub> =0, f=1.0MHz		2.0	pF
t <sub>rr</sub>	V <sub>R</sub> =6.0V, I <sub>F</sub> =10mA, I <sub>rr</sub> =1.0mA, R <sub>L</sub> =100Ω		2.0	ns
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =1.0mA		4.0	ns

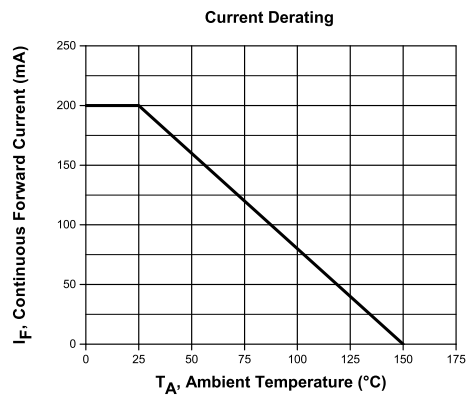
# CPD83V-1N4454

## Typical Electrical Characteristics



# CPD83V-1N4454

## Typical Electrical Characteristics



## 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

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**Worldwide Distributors:**  
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