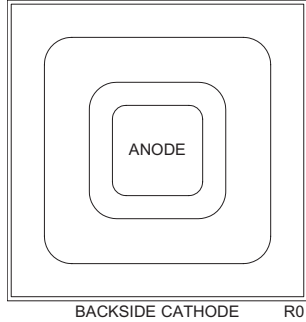


# CPD83V-1N4148

## High Speed Switching Diode Die

### 0.15 Amp, 100 Volt

The CPD83V-1N4148 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: ( $T_A=25^\circ\text{C}$ )

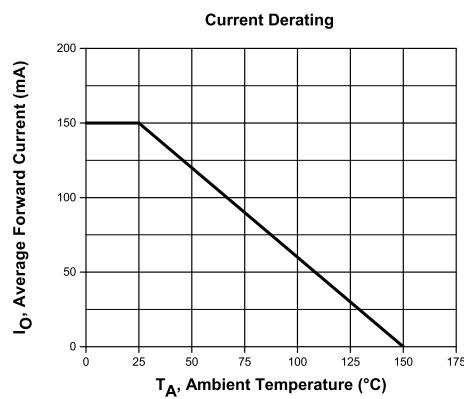
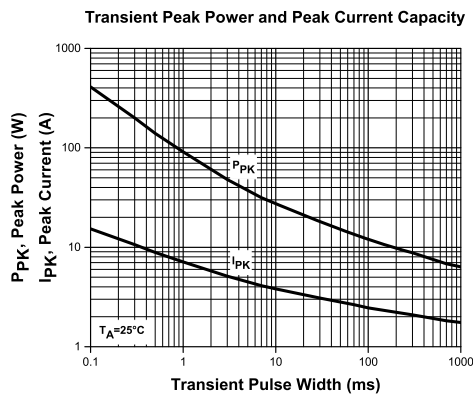
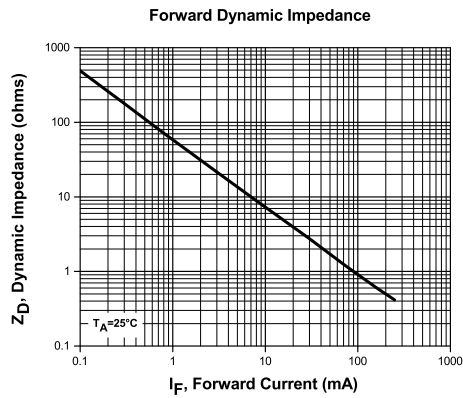
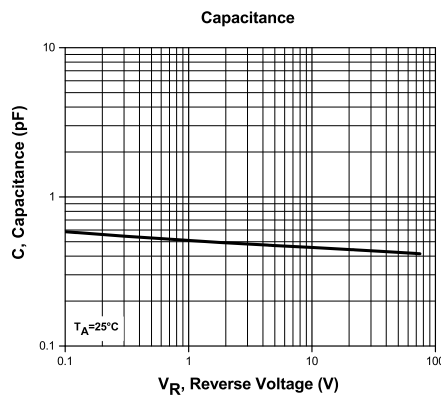
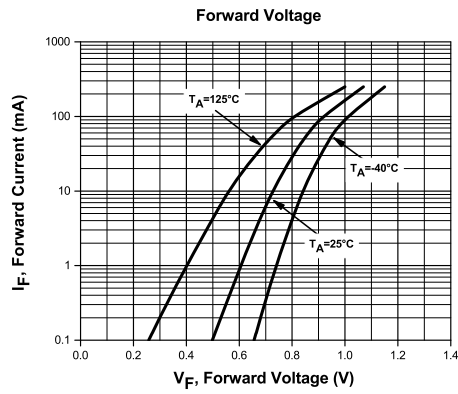
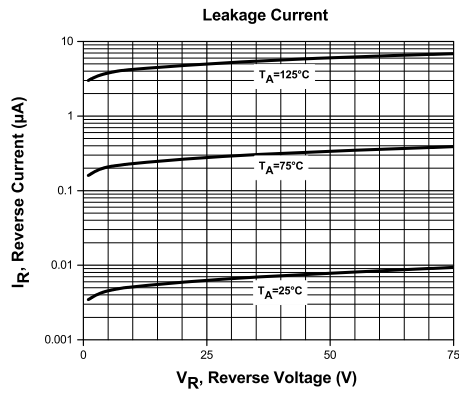
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Peak Working Reverse Voltage	$V_{RWM}$	75	V
Average Forward Current	$I_O$	150	mA
Continuous Forward Current	$I_F$	200	mA
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$	$I_{FSM}$	2.0	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=20\text{V}$		25	nA
$BV_R$	$I_R=1.0\text{mA}$	100		V
$BV_R$	$I_R=100\mu\text{A}$	75		V
$V_F$	$I_F=10\text{mA}$		1.0	V
$C_J$	$V_R=0, f=1.0\text{MHz}$		4.0	pF
$t_{rr}$	$V_R=6.0\text{V}, I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		4.0	ns

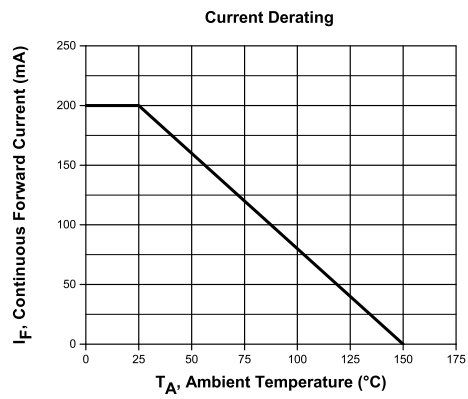
# CPD83V-1N4148

## Typical Electrical Characteristics



# CPD83V-1N4148

## Typical Electrical Characteristics



## 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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