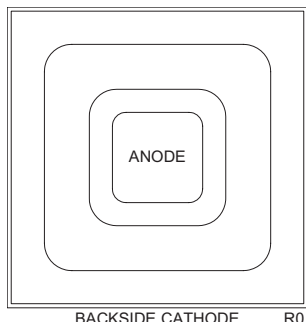


CPD83V-1N4148

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	$^{\circ}\text{C}$

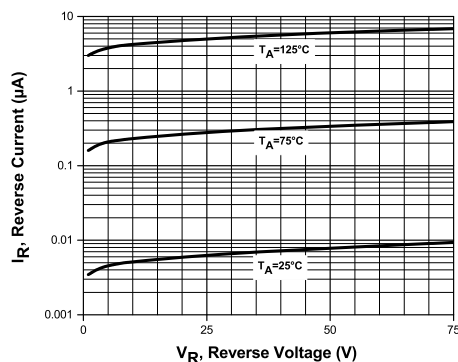
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$)

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

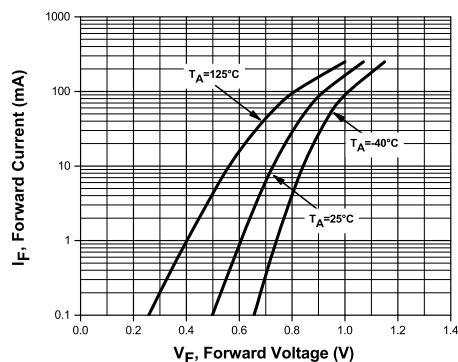
CPD83V-1N4148

Typical Electrical Characteristics

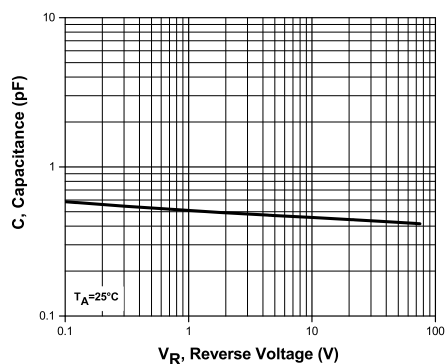
Leakage Current



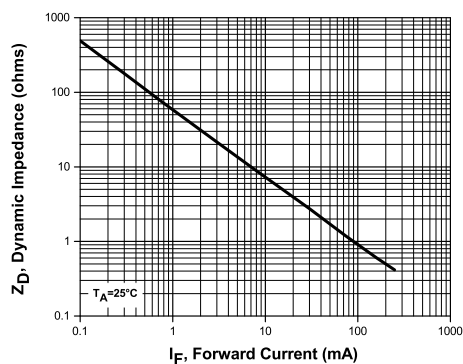
Forward Voltage



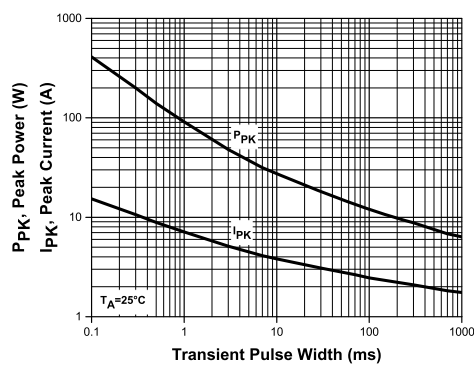
Capacitance



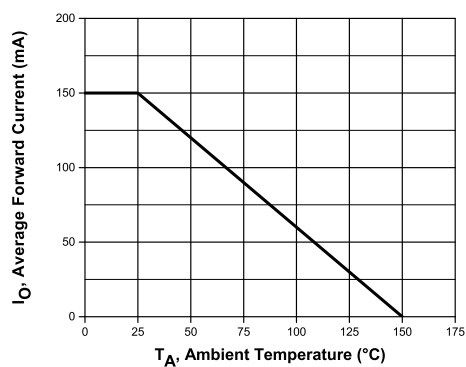
Forward Dynamic Impedance



Transient Peak Power and Peak Current Capacity

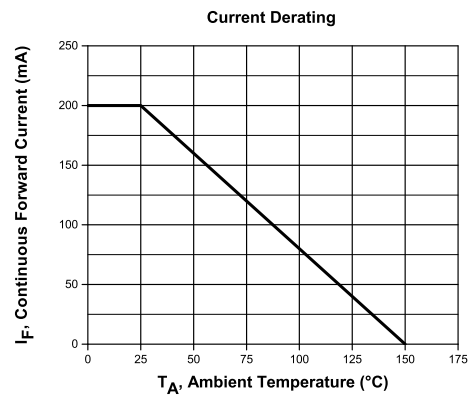


Current Derating



CPD83V-1N4148

Typical Electrical Characteristics



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

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