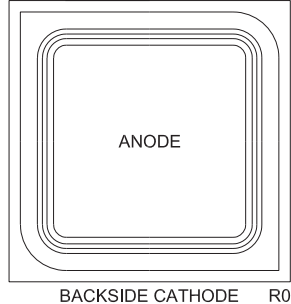


# CPD94X-CMLSH05-4

## Schottky Diode Die

### 0.5 Amp, 40 Volt

The CPD94X-CMLSH05-4 is a silicon 0.5 Amp, 40 Volt Schottky diode designed for low  $V_F$  applications.



#### MECHANICAL SPECIFICATIONS:

Die Size	20 x 20 MILS
Die Thickness	5.9 MILS
Anode Bonding Pad Size	16 x 16 MILS
Top Side Metalization	Al – 20,000Å
Back Side Metalization	Au – 9,000Å
Scribe Alley Width	1.57 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	41,921

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

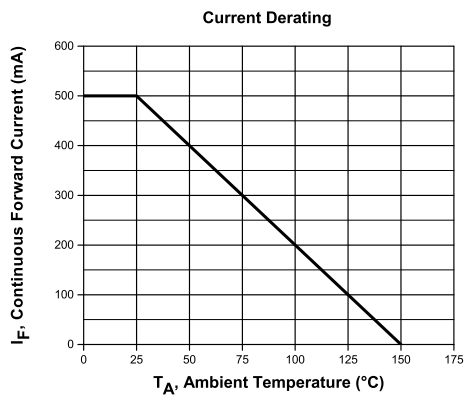
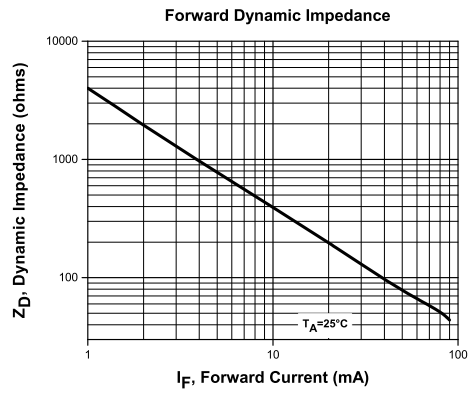
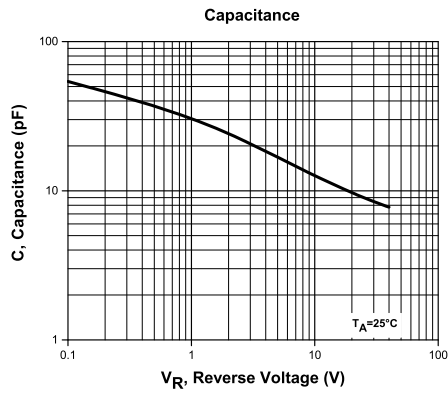
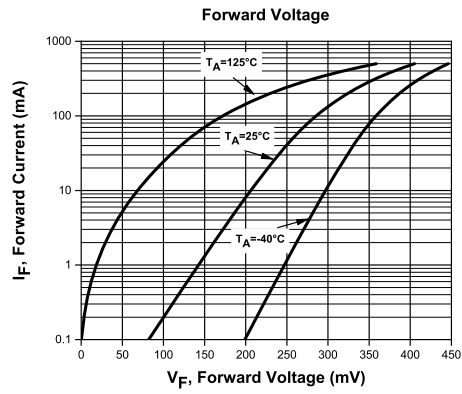
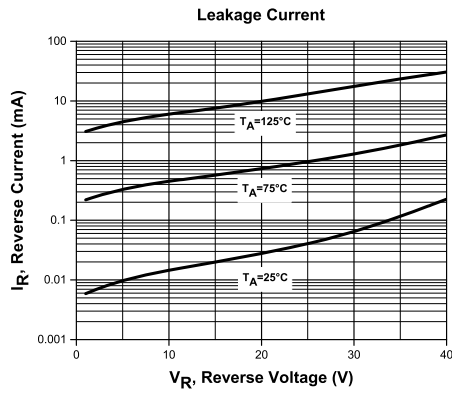
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Continuous Forward Current	$I_F$	500	mA
Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$	$I_{FRM}$	3.5	A
Peak Forward Surge Current, $t_p = 8.0\text{ms}$	$I_{FSM}$	10	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=10\text{V}$		20	$\mu\text{A}$
$I_R$	$V_R=30\text{V}$		100	$\mu\text{A}$
$BV_R$	$I_R=500\mu\text{A}$	40		V
$V_F$	$I_F=100\mu\text{A}$		0.13	V
$V_F$	$I_F=1.0\text{mA}$		0.21	V
$V_F$	$I_F=10\text{mA}$		0.27	V
$V_F$	$I_F=100\text{mA}$		0.35	V
$V_F$	$I_F=500\text{mA}$		0.47	V
$C_J$	$V_R=1.0\text{V}, f=1.0\text{MHz}$		50	pF

# CPD94X-CMLSH05-4

## 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](http://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 (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

---

### 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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)