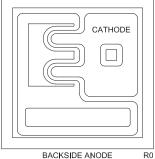


# **CPZ40X-CMO5V0LC** Low Capacitance Uni-Directional TVS Die 5.0 Volt

The CPZ40X-CMO5V0LC is a silicon, low capacitance uni-directional transient voltage suppressor designed to protect sensitive equipment against ESD damage.



MECHANICAL	SPECIFICATIONS:
MEDIANUCAL	

Die Size	13.4 x 13.4 MILS
Die Thickness	5.5 MILS
Cathode Bonding Pad Size	3.9 x 6.7 MILS
Top Side Metalization	AI – 30,000Å
Back Side Metalization	Au – 9,000Å
Scribe Alley Width	1.97 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	122,493

BACKSIDE ANODE

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Power Dissipation (8x20µs)	P <sub>PK</sub>	12	W
Electrical Fast Transient (IEC 61000-4-4) (5x50ns)	EFT	40	А
ESD Voltage (IEC 61000-4-2, Air)	V <sub>ESD</sub>	15	kV
ESD Voltage (IEC 61000-4-2, Contact)	VESD	10	kV
Operating Junction Temperature	ТЈ	-55 to +125	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

### **ELECTRICAL CHARACTERISTICS:** (TA=25°C) VF=1.0V MAX @ 10mA

Maximum Reverse Stand-off Voltage V <sub>RWM</sub>	Minimum Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub>	Test Current <sup>I</sup> T	Maximum Reverse Leakage Current IR @ VRWM	Maximum Clamping Voltage (8x20µs) V <sub>C</sub> @ Ipp		Typical TLP Clamping Voltage (Note 1) V <sub>CL</sub> @ IPP		Typical Dynamic Resistance (Note 1) R <sub>DYN</sub>	Maximum Junction Capacitance @ 0V Bias CJ
v	v	mA	μA	v	А	v	А	Ω	pF
5.0	6.0	1.0	1.0	12	1.0	5.0	4.0	0.96	0.9
5.0	0.0	0.0 1.0 1.0 1	12	12 1.0	10	9.2	0.90	0.9	

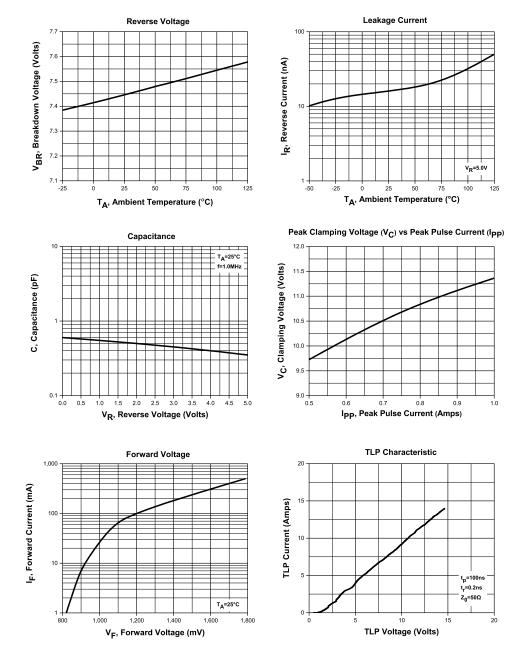
Note 1: Transmission Line Pulse (TLP) conditions:  $Z_0=50\Omega$ , tp=100ns

R0 (17-February 2017)

# **CPZ40X-CM05V0LC** Typical Electrical Characteristics



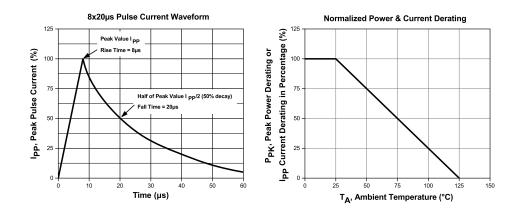
www.centralsemi.com



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# **CPZ40X-CM05V0LC** Typical Electrical Characteristics

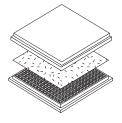




R0 (17-February 2017)

## BARE DIE PACKING OPTIONS



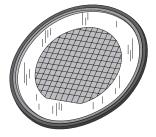


## BARE DIE IN TRAY (WAFFLE) PACK

- 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-<u>PART NUMBER</u>-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

## **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

#### **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

ss your design challenges.

· Custom product packing

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits

Custom bar coding for shipments

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).
- 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.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

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