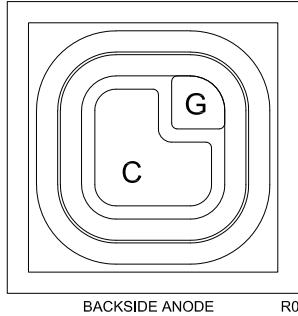


CPS053-CS92D

Silicon Controlled Rectifier Die

0.8 Amp, 400 Volt

The CPS053-CS92D is a Silicon Controlled Rectifier designed for sensing circuit and control system applications.



MECHANICAL SPECIFICATIONS:

Die Size	53.2 x 53.2 MILS
Die Thickness	8.7 MILS
Gate Bonding Pad Size	7.9 x 7.9 MILS
Source Bonding Pad Size	20.1 x 10.2 MILS
Top Side Metalization	Al – 45,000Å
Back Side Metalization	Al/Mo/Ni/Ag – 32,000Å
Scribe Alley Width	1.96 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	3,884

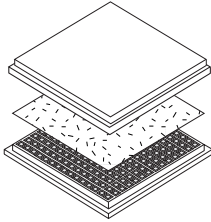
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL		UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	400	V
RMS On-State Current	$I_T(\text{RMS})$	0.8	A
Peak One Cycle Surge Current ($t=10\text{ms}$)	I_{TSM}	10	A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t	0.24	A^2s
Peak Gate Power Dissipation ($t_p=10\mu\text{s}$)	P_{GM}	2.0	W
Average Gate Power Dissipation	$P_{G(AV)}$	0.1	W
Peak Gate Current ($t_p=10\mu\text{s}$)	I_{GM}	1.0	A
Peak Gate Voltage ($t_p=10\mu\text{s}$)	V_{GM}	8.0	V
Operating Junction Temperature	T_J	-65 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{DRM}, I_{RRM}	$V_{DRM}, V_{RRM}=400\text{V}, R_{GK}=1.0\text{k}\Omega$		1.0	μA
I_{GT}	$V_D=12\text{V}$		200	μA
I_H	$I_T=100\text{mA}, R_{GK}=1.0\text{k}\Omega$		5.0	mA
V_{GT}	$V_D=12\text{V}$		0.8	V
V_{TM}	$I_{TM}=1.0\text{A}, t_p=380\mu\text{s}$		1.7	V

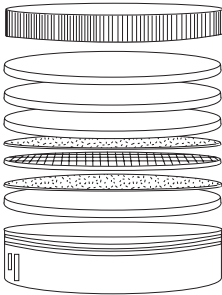
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

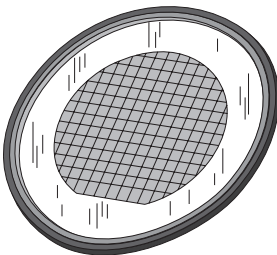
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

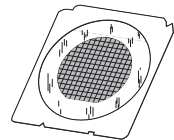
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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

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

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
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