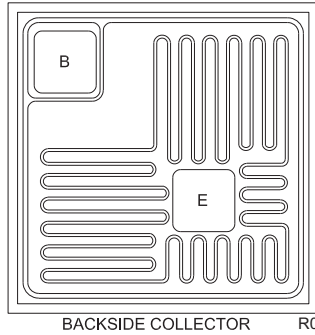


CP331-CZT2000

NPN - High Voltage Darlington Transistor Die

The CP331-CZT2000 is a silicon NPN Darlington transistor designed for high voltage and high gain applications.



MECHANICAL SPECIFICATIONS:

Die Size	39.4 x 39.4 MILS
Die Thickness	9.1 MILS
Base Bonding Pad Size	7.9 x 7.9 MILS
Emitter Bonding Pad Size	7.9 x 7.9 MILS
Top Side Metalization	Al-Si – 30,000Å
Back Side Metalization	Au-As – 18,000Å
Scribe Alley Width	2.0 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	11,055

MAXIMUM RATINGS: (T_A=25°C)

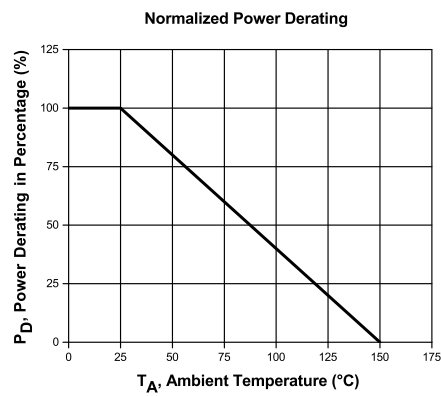
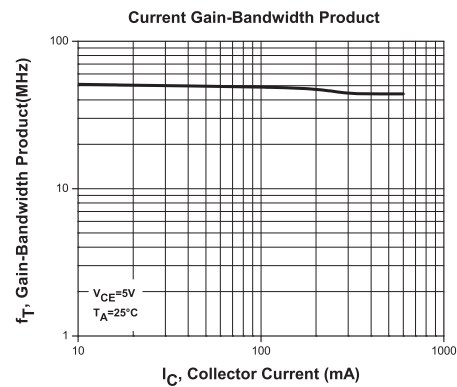
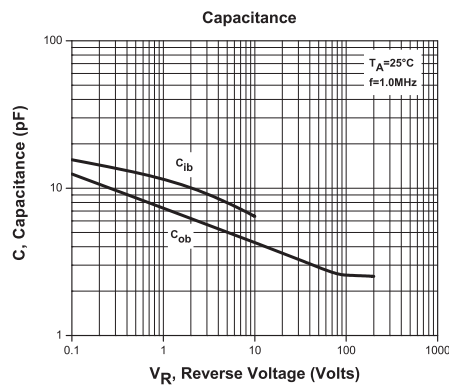
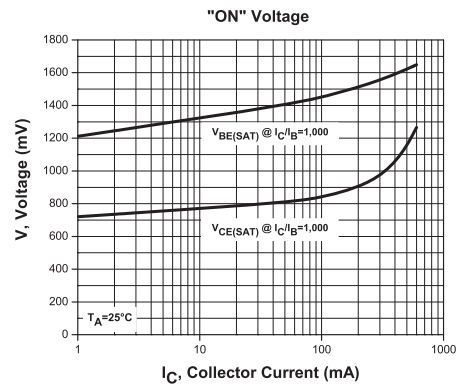
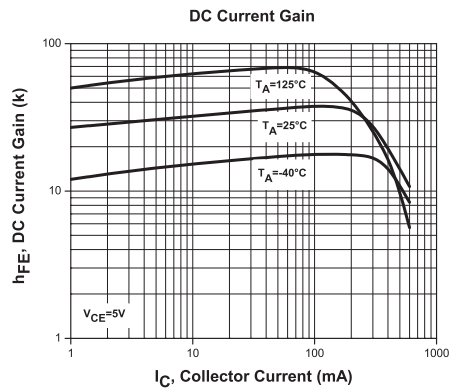
	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	200	V
Collector-Emitter Voltage	V _{CES}	200	V
Emitter-Base Voltage	V _{EBO}	10	V
Continuous Collector Current	I _C	600	mA
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

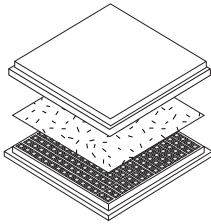
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =180V		500	nA
I _{EBO}	V _{BE} =10V		100	nA
BV _{CES}	I _C =1.0mA	200		V
V _{CE(SAT)}	I _C =20mA, I _B =25μA		0.9	V
V _{CE(SAT)}	I _C =80mA, I _B =40μA		1.1	V
V _{CE(SAT)}	I _C =160mA, I _B =100μA		1.2	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =160mA		2.0	V
h _{FE}	V _{CE} =5.0V, I _C =100μA	3000		
h _{FE}	V _{CE} =5.0V, I _C =10mA	3000		
h _{FE}	V _{CE} =5.0V, I _C =160mA	3000		

CP331-CZT2000

Typical Electrical Characteristics



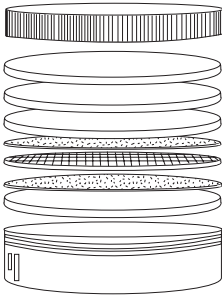
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

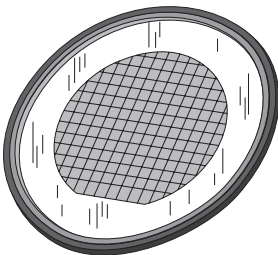
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

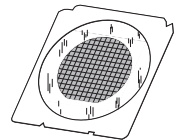
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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).

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