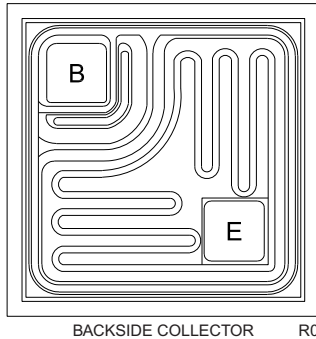


CP327V-2N5308

NPN - Darlington Transistor Die

0.3 Amp, 40 Volt

The CP327V-2N5308 die is a silicon NPN Darlington power transistor designed for high gain amplifier applications.



MECHANICAL SPECIFICATIONS:

Die Size	22.8 x 22.8 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	4.7 x 4.7 MILS
Emitter Bonding Pad Size	4.7 x 4.7 MILS
Top Side Metalization	Al-Si – 17,000Å
Back Side Metalization	Au – 9,000Å
Scribe Alley Width	1.8 mils
Wafer Diameter	5 INCHES
Gross Die Per Wafer	33,085

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	12	V
Continuous Collector Current	I _C	300	mA
Peak Collector Current	I _{CM}	500	mA
Continuous Base Current	I _B	100	mA
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

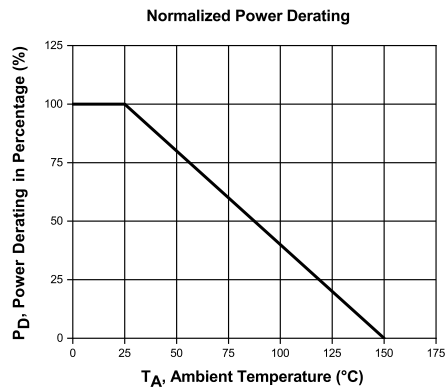
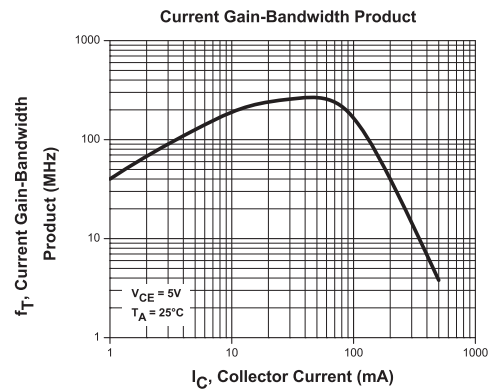
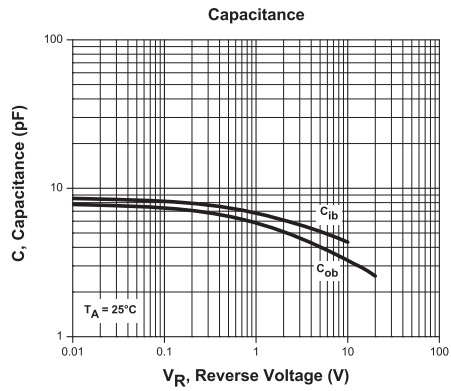
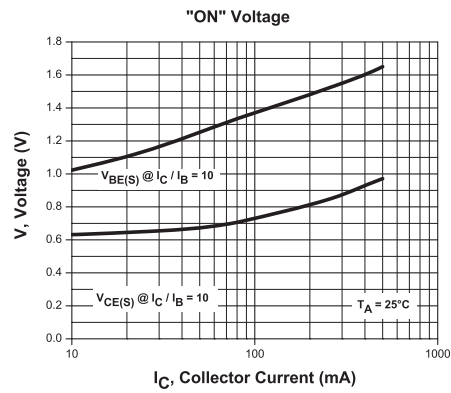
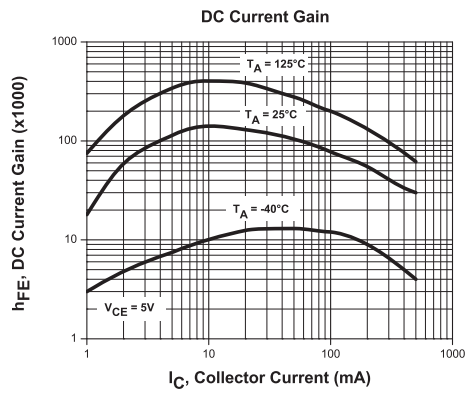
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CB0}	V _{CB} =40V			100	nA
I _{EBO}	V _{EB} =12V			100	nA
BV _{CB0}	I _C =10μA	40			V
BV _{CEO}	I _C =10mA	40			V
BV _{EBO}	I _E =10μA	12			V
V _{CE(SAT)}	I _C =200mA, I _B =200μA			1.4	V
V _{BE(SAT)}	I _C =200mA, I _B =200μA			1.6	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =200mA			1.5	V
h _{FE}	V _{CE} =5.0V, I _C =2.0mA	7.0K		70K	
h _{FE}	V _{CE} =5.0V, I _C =100mA	20K			
h _{fe}	V _{CE} =5.0V, I _C =2.0mA, f=1.0kHz	7.0K			
h _{fe}	V _{CE} =5.0V, I _C =2.0mA, f=10MHz	15.6			dB
h _{ie}	V _{CE} =5.0V, I _C =2.0mA, f=1.0kHz		650		kW
f _T	V _{CE} =5.0V, I _C =2.0mA, f=10MHz	60			MHz
C _{cb}	V _{CB} =10V, f=1.0MHz			10	pF
C _{eb}	V _{EB} =0.5V, f=1.0MHz		12		pF

R0 (30-October 2019)

CP327V-2N5308

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).

CONTACT US

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