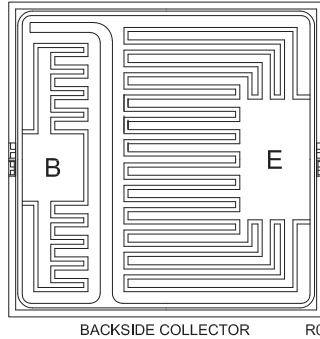


CP127-2N6301

NPN - Darlington Transistor Die

8.0 Amp, 80 Volt

The CP127-2N6301 is a silicon NPN Darlington power transistor designed for high gain amplifier applications.



MECHANICAL SPECIFICATIONS:

Die Size	110 x 110 MILS
Die Thickness	10.6 MILS
Base Bonding Pad Size	21 x 24 MILS
Emitter Bonding Pad Size	24 x 42 MILS
Top Side Metalization	Al - 20,000Å
Back Side Metalization	Ni/Ag - 2,000Å/10,000Å
Scribe Alley Width	4.3 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	700

MAXIMUM RATINGS: (T_C=25°C)

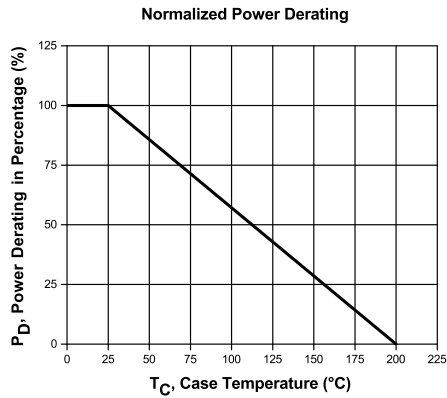
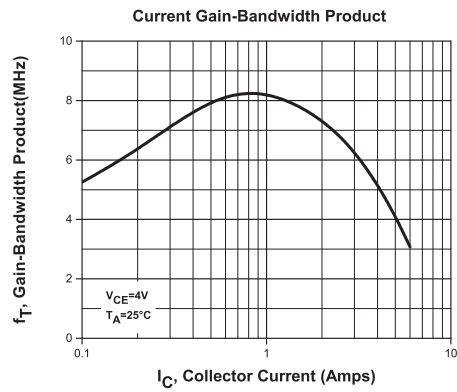
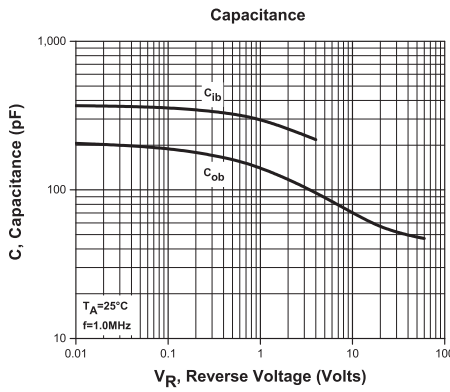
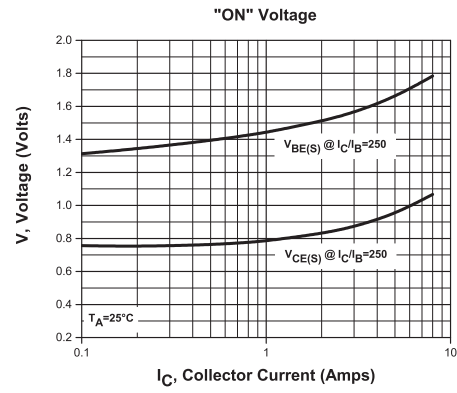
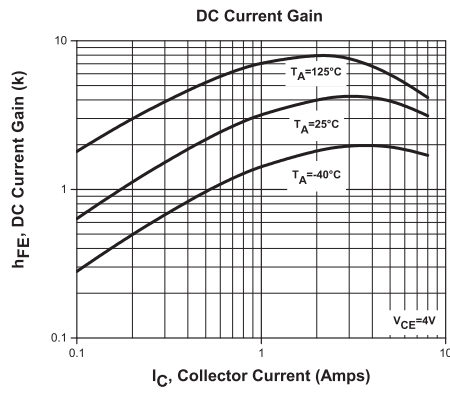
	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	80	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Continuous Collector Current	I _C	8.0	A
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200	°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CEV}	V _{CE} =80V, V _{BE} =1.5V		0.5	mA
I _{CEV}	V _{CE} =80V, V _{BE} =1.5V, T _C =150°C		5.0	mA
I _{CEO}	V _{CE} =40V		0.5	mA
I _{EBO}	V _{EB} =5.0V		2.0	mA
BV _{CEO}	I _C =100mA	80		V
V _{CE(SAT)}	I _C =4.0A, I _B =16mA		2.0	V
V _{CE(SAT)}	I _C =8.0A, I _B =80mA		3.0	V
V _{BE(SAT)}	I _C =8.0A, I _B =80mA		4.0	V
V _{BE(ON)}	V _{CE} =3.0V, I _C =4.0A		2.8	V
h _{FE}	V _{CE} =3.0V, I _C =4.0A	750	18K	
h _{FE}	V _{CE} =3.0V, I _C =8.0A	100		
h _{fe}	V _{CE} =3.0V, I _C =3.0A, f=1.0kHz	300		
f _T	V _{CE} =3.0V, I _C =3.0A, f=1.0MHz	4.0		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz		200	pF

CP127-2N6301

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

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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