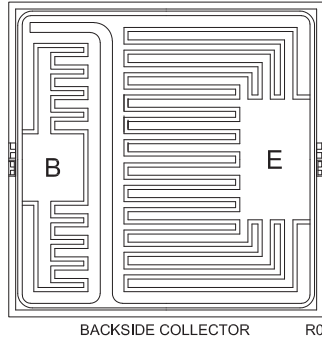


CP127-2N6301

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: ($T_C=25^{\circ}\text{C}$)

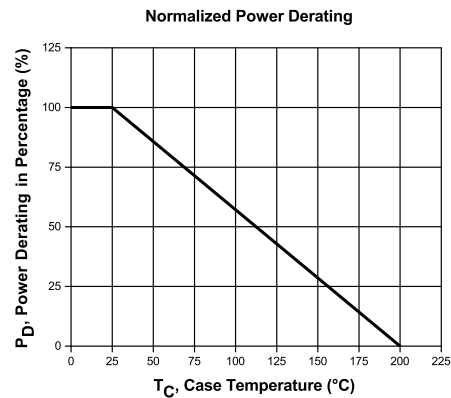
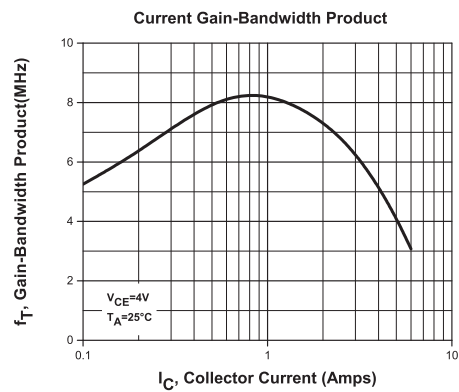
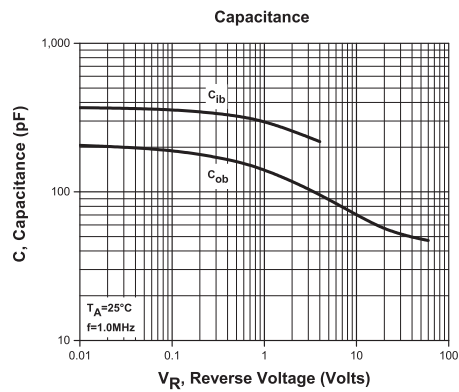
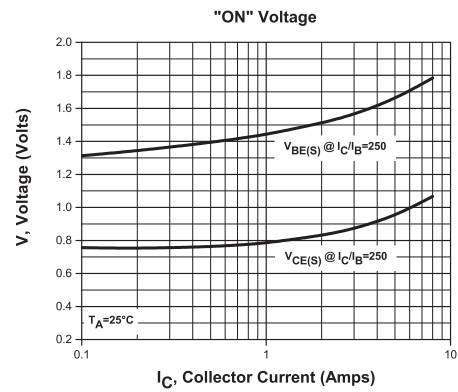
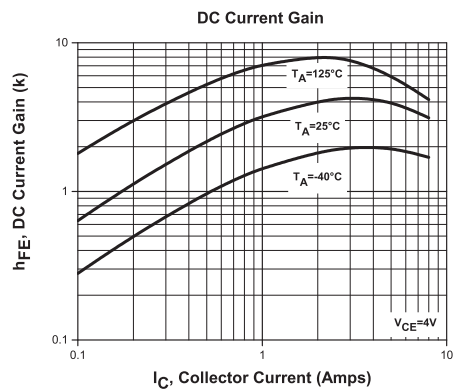
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	8.0	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEV}	$V_{CE}=80\text{V}, V_{BE}=1.5\text{V}$		0.5	mA
I_{CEV}	$V_{CE}=80\text{V}, V_{BE}=1.5\text{V}, T_C=150^{\circ}\text{C}$		5.0	mA
I_{CEO}	$V_{CE}=40\text{V}$		0.5	mA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0	mA
BV_{CEO}	$I_C=100\text{mA}$	80		V
$V_{CE(SAT)}$	$I_C=4.0\text{A}, I_B=16\text{mA}$		2.0	V
$V_{CE(SAT)}$	$I_C=8.0\text{A}, I_B=80\text{mA}$		3.0	V
$V_{BE(SAT)}$	$I_C=8.0\text{A}, I_B=80\text{mA}$		4.0	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$		2.8	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$	750	18K	
h_{FE}	$V_{CE}=3.0\text{V}, I_C=8.0\text{A}$	100		
h_{fe}	$V_{CE}=3.0\text{V}, I_C=3.0\text{A}, f=1.0\text{kHz}$	300		
f_T	$V_{CE}=3.0\text{V}, I_C=3.0\text{A}, f=1.0\text{MHz}$	4.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		200	pF

CP127-2N6301

Typical Electrical Characteristics



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

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