CP595-2N5680

PNP - High Current Transistor Die
1.0 Amp, 120 Volt

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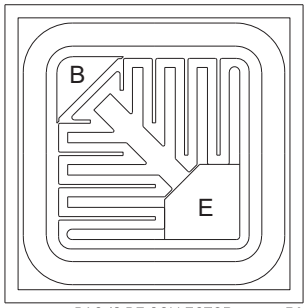
The CP595-2N5680 is a silicon PNP transistor designed for and high current applications.



BACKSIDE COLLECTOR R0

MECHANICAL SPECIFICATIONS:

Die Size	30 x 30 MILS
Die Thickness	7.0 MILS
Base Bonding Pad Size	6.0 x 6.0 MILS
Emitter Bonding Pad Size	7.5 x 7.5 MILS
Top Side Metalization	Al – 30,000Å
Back Side Metalization	Au – 10,000Å
Scribe Alley Width	2.4 MILS
Wafer Diameter	4 INCHES
Gross Die Per Wafer	12,500

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	4.0	V
Continuous Collector Current	I_C	1.0	A
Continuous Base Current	I_B	0.5	A
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}=120V		1.0	μA
I_{CEV}	V_{CE}=120V, V_{EB}=1.5V		1.0	μA
I_{CEO}	V_{CE}=80V		10	μA
I_{EBO}	V_{EB}=4.0V		1.0	μA
BV_{CEO}	I_C=10mA	120		V
$V_{CE(SAT)}$	I_C=250mA, I_B=25mA		0.6	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		1.0	V
$V_{CE(SAT)}$	I_C=1.0A, I_B=200mA		2.0	V
$V_{BE(ON)}$	V_{CE}=2.0V I_C=250mA		1.0	V
h_{FE}	V_{CE}=2.0V, I_C=250mA	40	150	
h_{FE}	V_{CE}=2.0V, I_C=1.0A	5.0		
h_{fe}	V_{CE}=1.5V, I_C=0.2A, f=1.0kHz	40		
f_T	V_{CE}=10V, I_C=100mA, f=10MHz	30		MHz
C_{ob}	V_{CB}=20V, I_E=0, f=1.0MHz		50	pF

CP595-2N5680
Typical Electrical Characteristics

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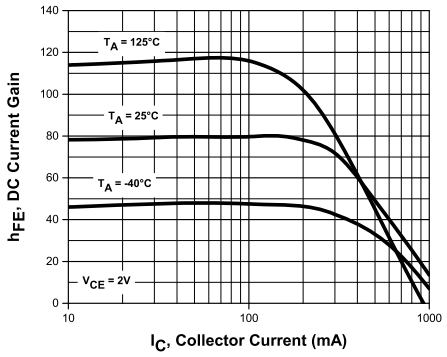
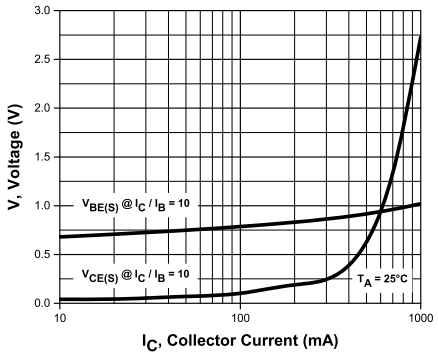
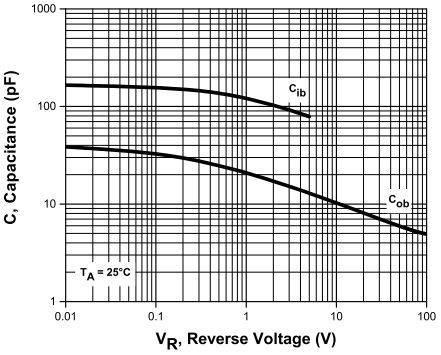
DC Current Gain



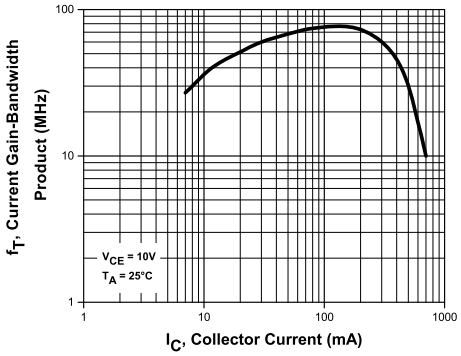
"ON" Voltage



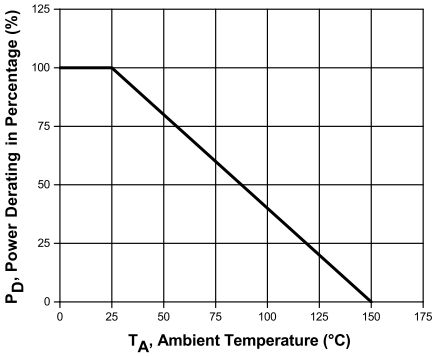
Capacitance



Current Gain-Bandwidth Product

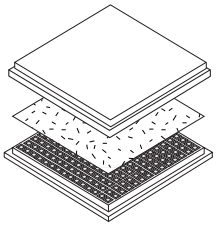


Normalized Power Derating



R1 (2-February 2017)

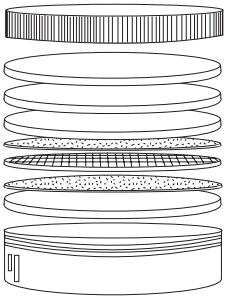
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

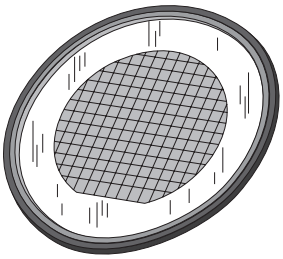
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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)



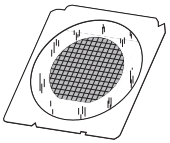
UNSAWN WAFER

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.centralsemi.com/bdspecs

R2 (3-April 2017)

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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