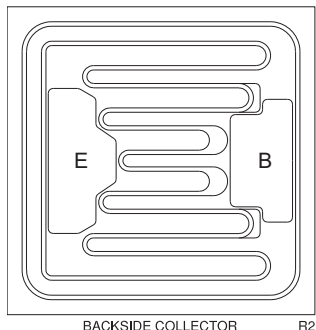


CP305V-BCW66H

NPN - Small Signal Transistor Die

0.8 Amp, 45 Volt

The CP305V-BCW66H is a silicon NPN small signal transistor designed for general purpose amplifier and switching applications.



MECHANICAL SPECIFICATIONS:

Die Size	31.1 x 31.1 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	5.9 x 11.8 MILS
Emitter Bonding Pad Size	6.5 x 13.8 MILS
Top Side Metalization	Al – 13,000Å
Back Side Metalization	Au/As-Au – 9,000Å
Scribe Alley Width	1.96 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	17,534

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	75	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Continuous Collector Current	I _C	800	mA
Peak Collector Current	I _{CM}	1.0	A
Continuous Base Current	I _B	100	mA
Peak Base Current	I _{BM}	200	mA
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

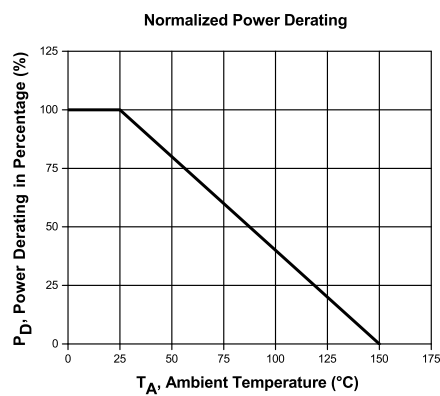
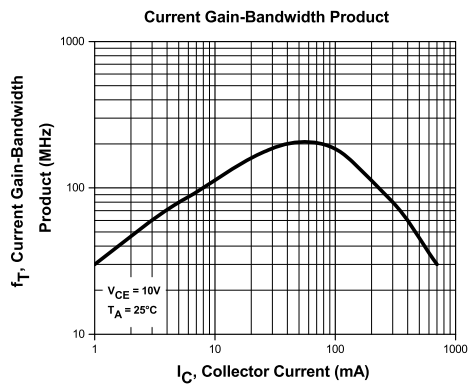
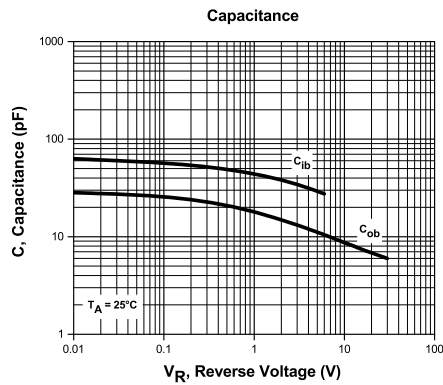
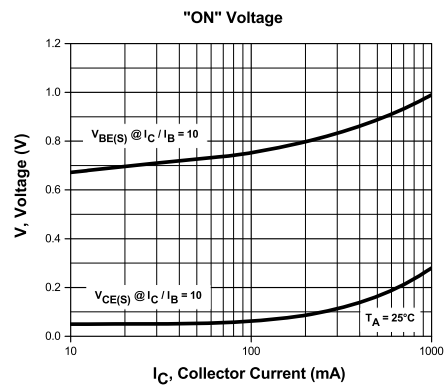
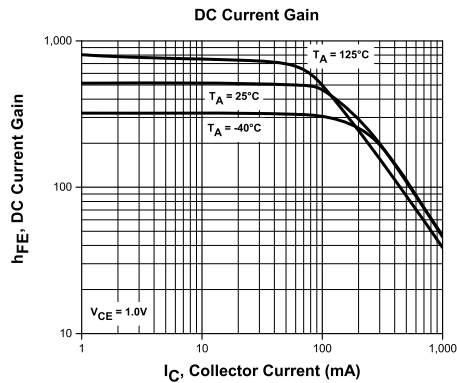
ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =75V			20	nA
I _{EBO}	V _{EB} =4.0V			20	nA
BV _{CBO}	I _C =10μA	75			V
BV _{CEO}	I _C =10mA	45			V
BV _{EBO}	I _E =10μA	5.0			V
V _{CE(SAT)}	I _C =100mA, I _B =10mA			0.3	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA			0.7	V
V _{BE(SAT)}	I _C =100mA, I _B =10mA			1.25	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA			2.0	V
h _{FE}	V _{CE} =10V, I _C =100μA	80			
h _{FE}	V _{CE} =1.0V, I _C =10mA	180			
h _{FE}	V _{CE} =1.0V, I _C =100mA	250		630	
h _{FE}	V _{CE} =2.0V, I _C =500mA	100			
f _T	V _{CE} =5.0V, I _C =50mA, f=20MHz		170		MHz
C _c	V _{CB} =10V, I _E =0, f=1.0MHz		8.0		pF
C _e	V _{EB} =0.5V, I _C =0, f=1.0MHz		50		pF

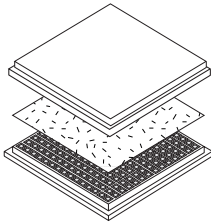
R2 (9-March 2017)

CP305V-BCW66H

Typical Electrical Characteristics



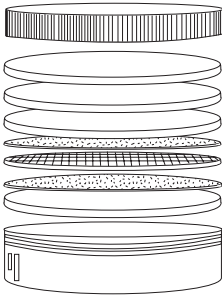
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

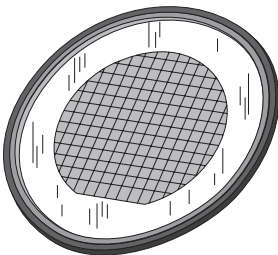
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

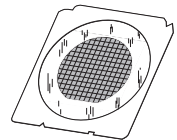
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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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