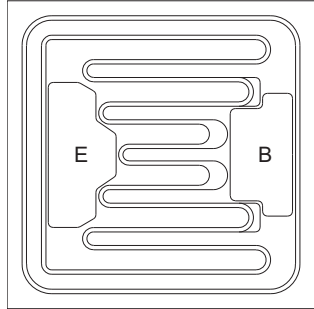


CP305V-BCW66H

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 |

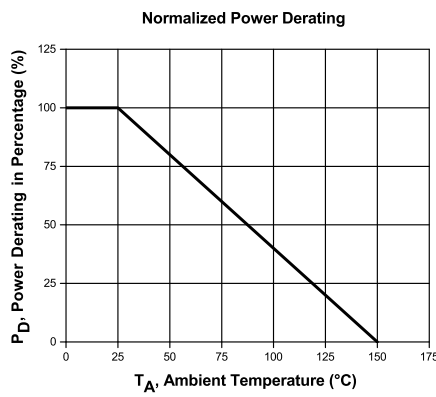
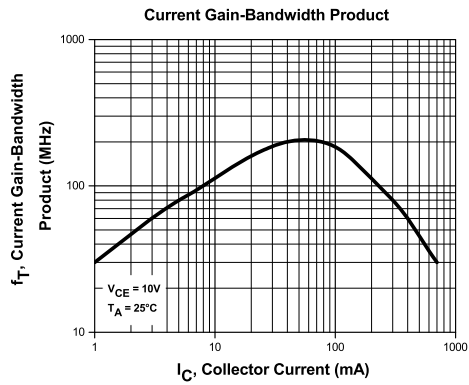
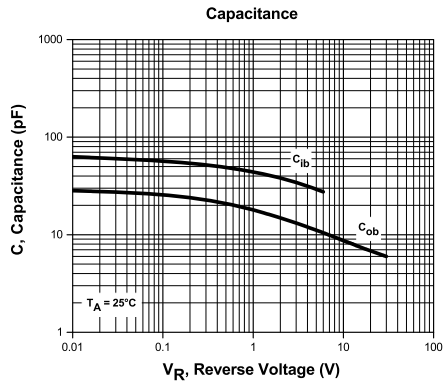
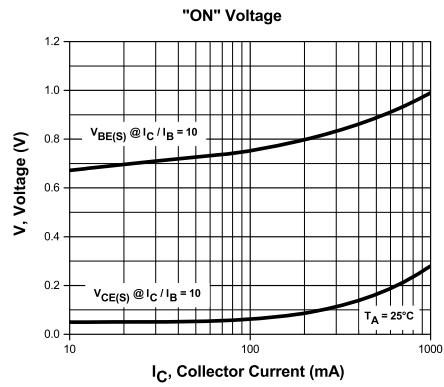
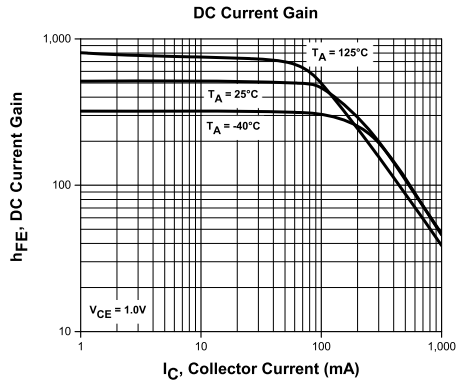
ELECTRICAL CHARACTERISTICS: (T_A=25°C)

| 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).

CONTACT US

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