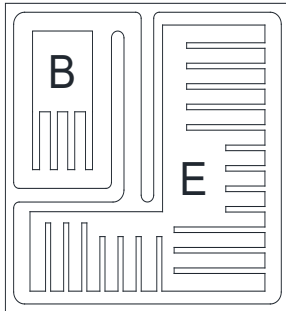


# CP660-TIP127

## PNP - Darlington Transistor Die

### 5.0 Amp, 100 Volt

The CP660-TIP127 die is a silicon PNP Darlington power transistor designed for low speed switching and amplifier applications.



#### MECHANICAL SPECIFICATIONS:

|                          |              |
|--------------------------|--------------|
| Die Size                 | 71 x 71 MILS |
| Die Thickness            | 9.4 MILS     |
| Base Bonding Pad Size    | 15 x 19 MILS |
| Emitter Bonding Pad Size | 15 x 21 MILS |
| Top Side Metalization    | Al - 42,500Å |
| Back Side Metalization   | Ag - 12,000Å |
| Scribe Alley Width       | 3.15 MILS    |
| Wafer Diameter           | 4 INCHES     |
| Gross Die Per Wafer      | 2,200        |

#### MAXIMUM RATINGS: ( $T_A=25^\circ\text{C}$ )

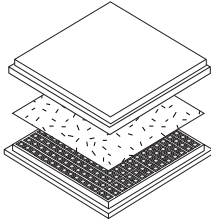
|  | SYMBOL         |             | UNITS            |
|--|----------------|-------------|------------------|
| Collector-Base Voltage                     | $V_{CBO}$      | 100         | V                |
| Collector-Emitter Voltage                  | $V_{CEO}$      | 100         | V                |
| Emitter-Base Voltage                       | $V_{EBO}$      | 5.0         | V                |
| Continuous Collector Current               | $I_C$          | 5.0         | A                |
| Peak Collector Current                     | $I_{CM}$       | 8.0         | A                |
| Continuous Base Current                    | $I_B$          | 120         | mA               |
| Operating and Storage Junction Temperature | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$ |

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

| SYMBOL        | TEST CONDITIONS  | MIN  | MAX | UNITS         |
|---------------|--|------|-----|---------------|
| $I_{CBO}$     | $V_{CB}=100\text{V}$                                   |      | 200 | $\mu\text{A}$ |
| $I_{CEO}$     | $V_{CE}=50\text{V}$                                    |      | 500 | $\mu\text{A}$ |
| $I_{EBO}$     | $V_{EB}=5.0\text{V}$                                   |      | 2.0 | mA            |
| $BV_{CEO}$    | $I_C=100\text{mA}$                                     | 100  |     | V             |
| $V_{CE(SAT)}$ | $I_C=3.0\text{A}, I_B=12\text{mA}$                     |      | 2.0 | V             |
| $V_{CE(SAT)}$ | $I_C=5.0\text{A}, I_B=20\text{mA}$                     |      | 4.0 | V             |
| $V_{BE(ON)}$  | $V_{CE}=3.0\text{V}, I_C=3.0\text{A}$                  |      | 2.5 | V             |
| $h_{FE}$      | $V_{CE}=3.0\text{V}, I_C=500\text{mA}$                 | 1.0K |     |               |
| $h_{FE}$      | $V_{CE}=3.0\text{V}, I_C=3.0\text{A}$                  | 1.0K |     |               |
| $f_T$         | $V_{CE}=4.0\text{V}, I_C=3.0\text{A}, f=1.0\text{MHz}$ | 4.0  |     | MHz           |
| $C_{ob}$      | $V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$            |      | 300 | pF            |

## BARE DIE PACKING OPTIONS

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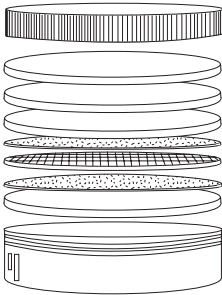


### BARE DIE IN TRAY (WAFFLE) PACK

**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)

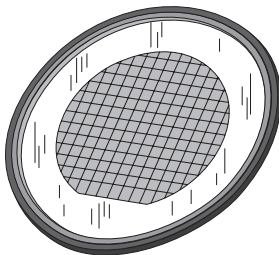
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### UNSAWN WAFER

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

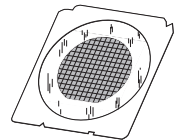
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### SAWN WAFER ON PLASTIC RING

**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](http://www.centrasemi.com/bdspecs)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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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### 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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### 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](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

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