

# CP336V-2N5551

# **NPN - High Voltage Transistor Die**

The CP336V-2N5551 is a silicon NPN transistor designed for high voltage, general purpose applications.



## **MECHANICAL SPECIFICATIONS:**

Die Size	17.3 x 17.3 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	3.9 x 3.9 MILS
Emitter Bonding Pad Size	3.9 x 3.9 MILS
Top Side Metalization	Al-Si – 17,000Å
Back Side Metalization	Au – 9,000Å
Scribe Alley Width	1.8 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	57,735

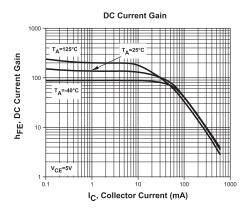
MAXIMUM F	RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS	
Collector-Base Voltage		V <sub>CBO</sub>	180	V	
Collector-Emitter Voltage		VCEO	160	V	
Emitter-Base Voltage		$V_{EBO}$	6.0	V	
Continuous Collector Current		I <sub>C</sub>	600	mA	
Operating and Storage Junction Temperature		T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C	
ELECTRICAL CHARACTERISTICS: (T <sub>A</sub> =25°C)					
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS	
ICBO	V <sub>CB</sub> =120V		50	nA	
I <sub>EBO</sub>	V <sub>EB</sub> =4.0V		50	nA	
BV <sub>CBO</sub>	I <sub>C</sub> =100μA	180		V	
BVCEO	I <sub>C</sub> =1.0mA	160		V	
<b>BV</b> EBO	I <sub>E</sub> =10μA	6.0		V	
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA		0.15	V	
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.20	V	
V <sub>BE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		1.0	V	
h <sub>FE</sub>	$V_{CE}$ =5.0V, $I_{C}$ =1.0mA	80			
hFE	$V_{CE}$ =5.0V, $I_{C}$ =10mA	80	250		
h <sub>FE</sub>	$V_{CE}$ =5.0V, $I_{C}$ =50mA	30			
$f_{T}$	$V_{CE}$ =10V, $I_{C}$ =10mA, f=100MHz	100	300	MHz	
$C_{ob}$	$V_{CB}$ =10V, $I_E$ =0, f=1.0MHz		6.0	pF	

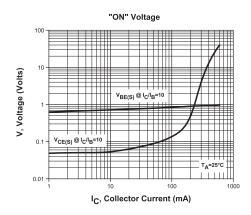
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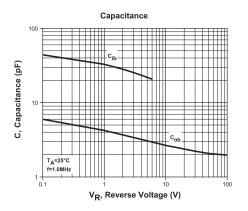
# **Typical Electrical Characteristics**

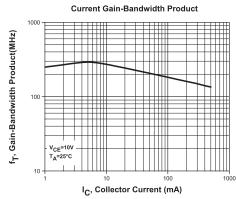


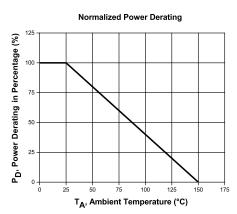
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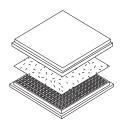






### BARE DIE PACKING OPTIONS

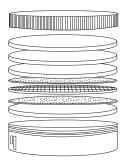




# BARE DIE IN TRAY (WAFFLE) PACK

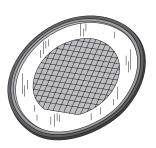
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

### **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 guick 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

#### 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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