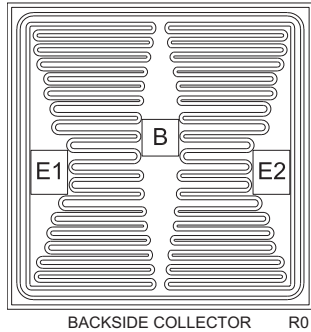


# CP753V-CZT953

## PNP - High Current Transistor Die

### 5.0 Amp, 100 Volt

The CP753V-CZT953 is a silicon PNP transistor designed for high current applications.



#### MECHANICAL SPECIFICATIONS:

Die Size	65.7 x 65.7 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	7.9 x 7.9 MILS
Emitter 1 Bonding Pad Size	7.9 x 8.7 MILS
Emitter 2 Bonding Pad Size	7.9 x 8.7 MILS
Top Side Metalization	Al-Si – 30,000Å
Back Side Metalization	Ti/Ni/Ag – 2,000Å/3,000Å/20,000Å
Scribe Alley Width	1.96 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	3,878

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

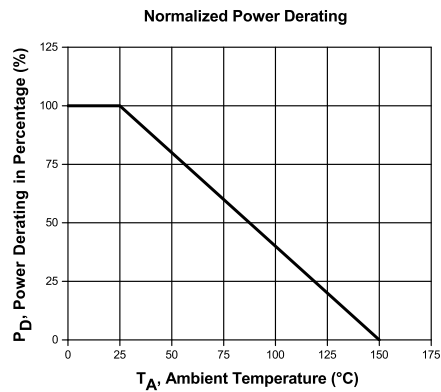
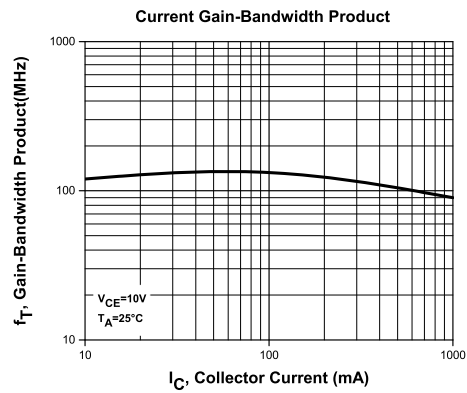
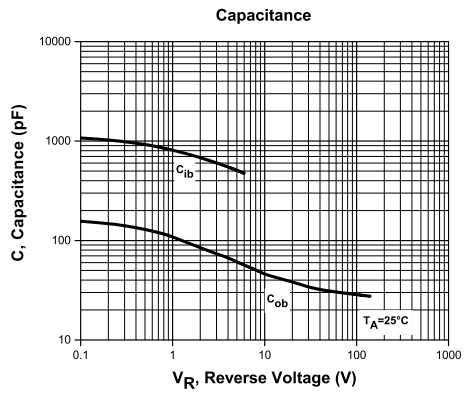
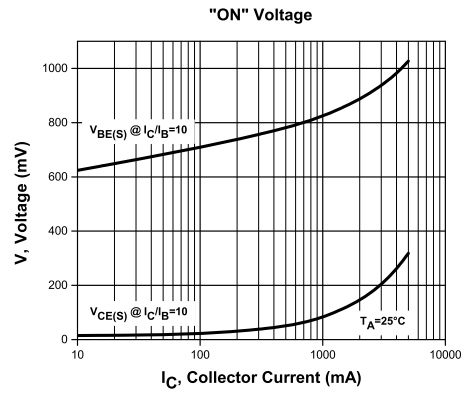
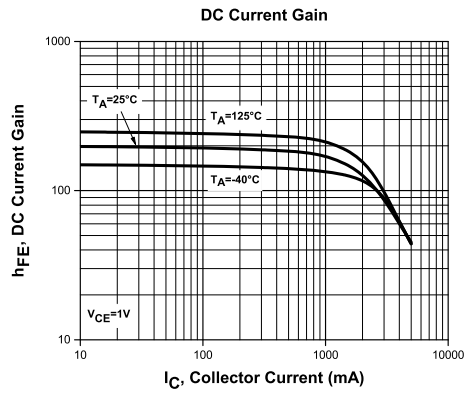
	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	140	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	6.0	V
Continuous Collector Current	$I_C$	5.0	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=100\text{V}$			50	nA
$I_{CER}$	$V_{CE}=100\text{V}, R_{BE}\leq 1.0\text{k}\Omega$			50	nA
$I_{EBO}$	$V_{EB}=6.0\text{V}$			10	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	140			V
$BV_{CER}$	$I_C=10\text{mA}, R_{BE}\leq 1.0\text{k}\Omega$	140			V
$BV_{CEO}$	$I_C=1.0\text{mA}$	100		140	V
$BV_{EBO}$	$I_E=100\mu\text{A}$	6.0			V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			50	mV
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$			120	mV
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=200\text{mA}$			220	mV
$V_{CE(SAT)}$	$I_C=4.0\text{A}, I_B=400\text{mA}$			420	mV
$V_{BE(SAT)}$	$I_C=4.0\text{A}, I_B=400\text{mA}$			1.2	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=10\text{mA}$	100			
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	100		300	
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=3.0\text{A}$	50			
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=4.0\text{A}$	30			
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=10\text{A}$		15		
$f_T$	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=50\text{MHz}$		150		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		45		pF

# CP753V-CZT953

## Typical Electrical Characteristics



## 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)

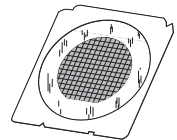
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### SAWN WAFER ON PLASTIC RING

**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)

**Worldwide Distributors:**  
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