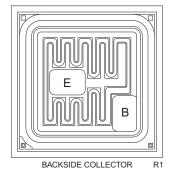


## **CP304V-MPSA06** NPN - General Purpose Transistor Die 0.5 Amp, 80 Volt

The CP304V-MPSA06 is a silicon NPN transistor designed for low power output and medium power driver applications.



MECHANICAL SPECIFICATIONS:
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22 x 22 MILS
7.1 MILS
5.7 x 3.9 MILS
5.3 x 3.9 MILS
AI – 30,000Å
Au – 18,000Å
1.97 MILS
4 INCHES
23,048

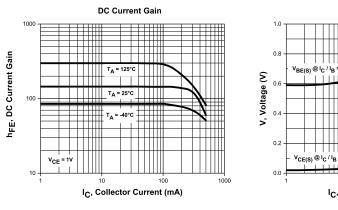
MAXIMUM R Collector-Bas	RATINGS: (T <sub>A</sub> =25°C)	SYMBOL	80	UNITS V
	0	V <sub>CBO</sub>		-
Collector-Em	itter Voltage	VCEO	80	V
Emitter-Base	Voltage	V <sub>EBO</sub>	4.0	V
Continuous C	Collector Current	IC	500	mA
Operating an	d Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
ELECTRICA SYMBOL I <sub>CBO</sub>	L CHARACTERISTICS: (T <sub>A</sub> =25°C) TEST CONDITIONS V <sub>CB</sub> =80V	MIN	<b>MAX</b> 100	UNITS nA
	00		100	nA
ICES	V <sub>CE</sub> =60V		100	
BVCEO	I <sub>C</sub> =1.0mA	80		V
BVEBO	I <sub>E</sub> =100μA	4.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.25	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA		1.2	V
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =10mA	100		
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA	100		
f <sub>T</sub>	$V_{CE}$ =2.0V, I <sub>C</sub> =10mA, f=100MHz	100		MHz

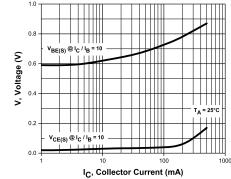
R0 (23-February 2017)

# **CP304V-MPSA06** Typical Electrical Characteristics



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"ON" Voltage

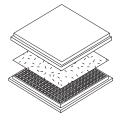
Capacitance Current Gain-Bandwidth Product 1000 100 f<sub>T</sub>, Current Gain-Bandwidth C, Capacitance (pF) Product (MHz) 100 10  $V_{CE} = 2V$  $T_A = 25^{\circ}C$ TA, 25°C іш 1 + 100 10 0.1 100 1000 10 I<sub>C</sub>, Collector Current (mA) V<sub>R</sub>, Reverse Voltage (V)

Normalized Power Derating 125 P<sub>D</sub>, Power Derating in Percentage (%) 100 75 50 25 0 -50 75 100 175 25 125 150 T<sub>A</sub>, Ambient Temperature (°C)

R0 (23-February 2017)

## BARE DIE PACKING OPTIONS



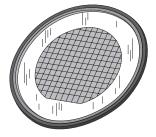


## BARE DIE IN TRAY (WAFFLE) PACK

- 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-<u>PART NUMBER</u>-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

#### 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

· Custom product packing

Custom bar coding for shipments

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- · Custom product and package development

#### REQUESTING PRODUCT PLATING

- If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when 1. 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

#### **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.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

Worldwide Distributors: www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's LIMITATIONS AND DAMAGES DISCLAIMER. which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms





http://www.centralsemi.com

# Product End of Life Notification

PDN ID:	PDN01097
Notification Date:	7/18/18
Last Buy Date:	1/18/19
Last Shipment Date	7/18/19

Summary: The CP304V-MPSA06-CT has been discontinued and is now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

Central Part Number	Replacement
CP304V-MPSA06-CT	CP304X-MPSA06-CT

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.