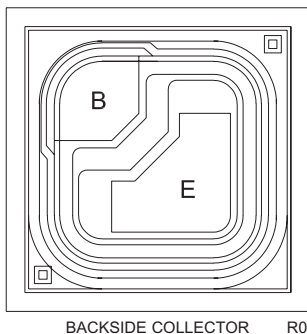


CP788X-BCY70

PNP - General Purpose Transistor Die

The CP788X-BCY70 is a silicon PNP transistor designed for general purpose applications.



BACKSIDE COLLECTOR R0

MECHANICAL SPECIFICATIONS:

Die Size	13.7 x 13.7 MILS
Die Thickness	5.9 MILS
Base Bonding Pad Size	4.0 x 4.0 MILS
Emitter Bonding Pad Size	5.5 x 5.5 MILS
Top Side Metalization	Al-Si – 17,000Å
Back Side Metalization	Au – 12,000Å
Scribe Alley Width	1.8 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	126,028

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage

Collector-Emitter Voltage

Emitter-Base Voltage

Peak Collector Current

Operating and Storage Junction Temperature

SYMBOL

V_{CBO}

V_{CEO}

V_{EBO}

I_{CM}

T_J, T_{stg}

50

40

5.0

200

-65 to +150

UNITS

V

V

V

mA

°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CES}	V _{CE} =20V		10	nA
I _{CES}	V _{CE} =50V		500	nA
I _{EBO}	V _{EB} =5.0V		10	μA
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.25	V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA		0.5	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA	0.6	0.9	V
h _{FE}	V _{CE} =1.0V, I _C =0.1mA	40		
h _{FE}	V _{CE} =1.0V, I _C =1.0mA	45		
h _{FE}	V _{CE} =1.0V, I _C =10mA	50		
h _{FE}	V _{CE} =1.0V, I _C =50mA	15		
f _T	V _{CE} =20V, I _C =10mA, f=100MHz	250		MHz
C _{EBO}	V _{EB} =1.0V, I _C =0, f=1.0MHz		8.0	pF
C _{CBO}	V _{CB} =10V, I _E =0, f=1.0MHz		8.0	pF
N _F	I _C =0.1mA, V _{CE} =5.0V, R _G =2.0kΩ, f=10kHz		6.0	dB
t _d	I _C =10mA, V _{EE} =3.0V, I _{B1} =1.0mA		35	ns
t _r	I _C =10mA, V _{EE} =3.0V, I _{B1} =1.0mA		35	ns
t _s	I _C =10mA, V _{EE} =3.0V, I _{B1} =1.0mA, I _{B2} =1.0mA		350	ns

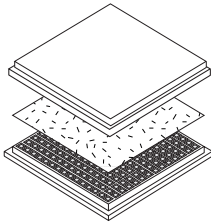
CP788X-BCY70

PNP - General Purpose Transistor Die

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$) (continued)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
t_f	$I_C=10\text{mA}$, $V_{EE}=3.0\text{V}$, $I_{B1}=1.0\text{mA}$, $I_{B2}=1.0\text{mA}$		80	ns
t_{on}	$I_C=10\text{mA}$, $V_{EE}=3.0\text{V}$, $I_{B1}=1.0\text{mA}$		65	ns
t_{off}	$I_C=10\text{mA}$, $V_{EE}=3.0\text{V}$, $I_{B1}=1.0\text{mA}$, $I_{B2}=1.0\text{mA}$		420	ns

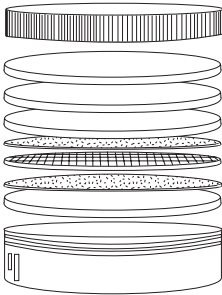
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

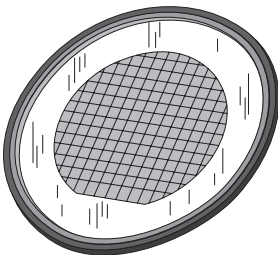
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

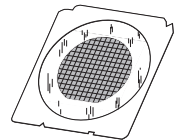
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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