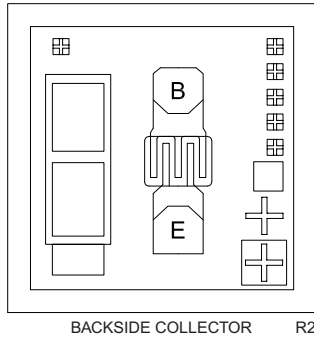


CP317X-2N5179

NPN - RF Transistor Die

50mA, 12 Volt

The CP317X-2N5179 is a silicon NPN RF transistor designed for low noise, high frequency amplifier and high output oscillator applications.



MECHANICAL SPECIFICATIONS:

Die Size	14.57 x 14.57 MILS
Die Thickness	5.9 MILS
Base Bonding Pad Size	2.4 x 2.2 MILS
Emitter Bonding Pad Size	2.4 x 2.2 MILS
Top Side Metalization	Al-Si – 12,000Å
Back Side Metalization	Au-As – 9,000Å
Scribe Alley Width	2.3 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	81,751

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Operating and Storage Junction Temperature

SYMBOL

V _{CBO}
V _{CEO}
V _{EBO}
I _C
T _J , T _{stg}

20
12
2.5
50
-65 to +150

UNITS

V
V
V
mA
°C

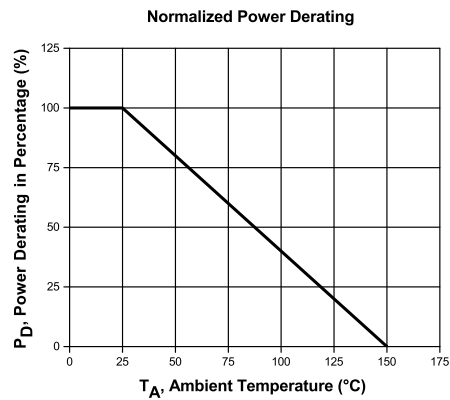
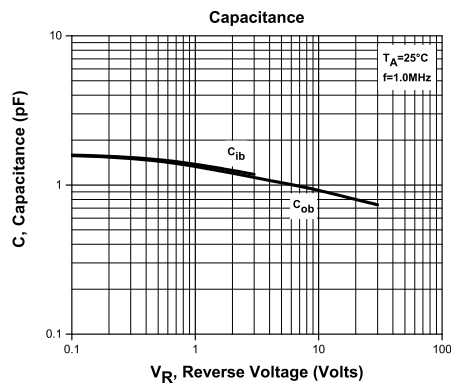
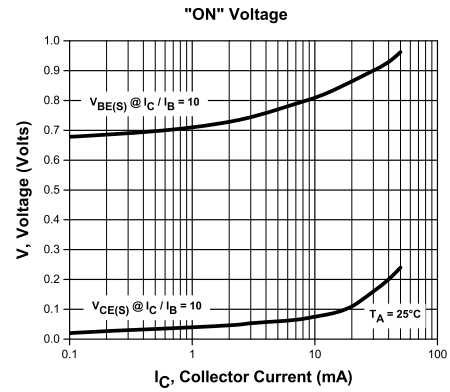
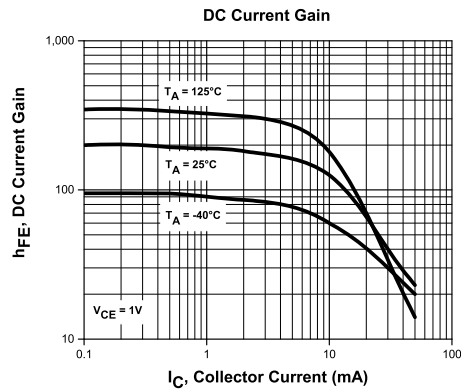
ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =15V		20	nA
BV _{CBO}	I _C =1.0μA	20		V
BV _{CEO}	I _C =3.0mA	12		V
BV _{EBO}	I _E =10μA	2.5		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.4	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA		1.0	V
h _{FE}	V _{CE} =1.0V, I _C =3.0mA	25	250	
h _{fe}	V _{CE} =6.0V, I _C =2.0mA, f=1.0kHz	25	300	
f _T	V _{CE} =6.0V, I _C =5.0mA, f=100MHz	900	2000	MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		1.0	pF
P _o	V _{CB} =10V, I _E =12mA, f=500MHz	20		mW
G _{pe}	V _{CE} =6.0V, I _C =5.0mA, f=200MHz	15		dB
NF	V _{CE} =6.0V, I _C =1.5mA, f=200MHz, R _S =50Ω		4.5	dB
r _b 'C _C	V _{CB} =6.0V, I _C =2.0mA, f=31.9MHz	3.0	14	ps

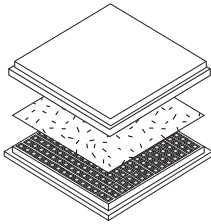
R0 (6-September 2017)

CP317X-2N5179

Typical Electrical Characteristics



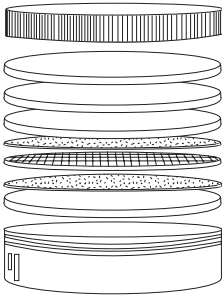
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

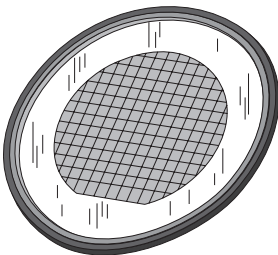
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

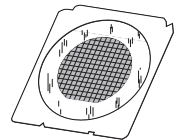
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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.centalsemi.com

Worldwide Field Representatives:
www.centalsemi.com/wwreps

Worldwide Distributors:
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