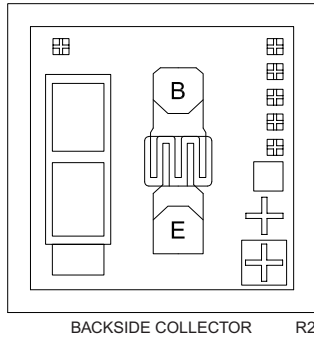


CP317X-BFY90

NPN - RF Transistor Die

50mA, 15 Volt

The CP317X-BFY90 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	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CER}	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EBO}	2.5	V
Continuous Collector Current	I _C	25	mA
Peak Collector Current (f ≥ 1.0MHz)	I _{CM}	50	mA
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

SYMBOL

UNITS

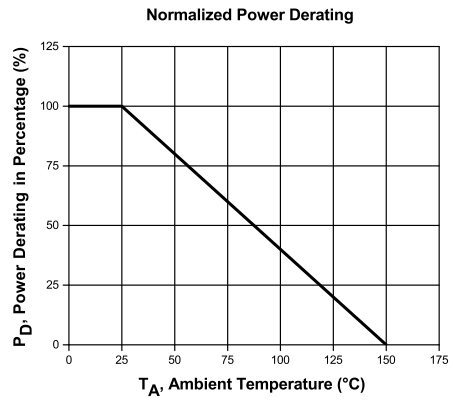
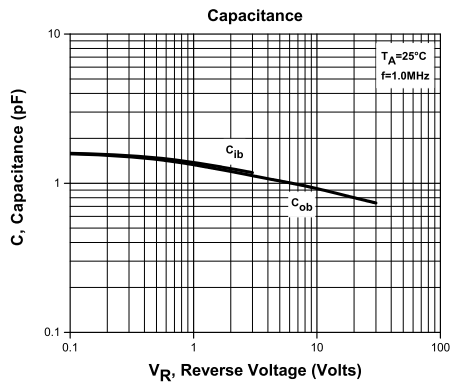
ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =15V			10	nA
BV _{CB0}	I _C =10μA	30			V
BV _{CER}	I _C =1.0mA, R _{BE} =50Ω	30			V
BV _{CEO}	I _C =1.0mA	15			V
BV _{EBO}	I _E =10μA	2.5			V
h _{FE}	V _{CE} =1.0V, I _C =2.0mA	25		150	
h _{FE}	V _{CE} =1.0V, I _C =25mA	20		125	
f _T	V _{CE} =5.0V, I _C =2.0mA, f=500MHz	1.0			GHz
f _T	V _{CE} =5.0V, I _C =25mA, f=500MHz	1.3			GHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz			1.5	pF
C _{re}	V _{CE} =5.0V, I _C =2.0mA, f=1.0MHz			0.8	pF
G _{pe}	V _{CE} =10V, I _C =14mA, f=200MHz	21			dB
G _{pe}	V _{CE} =10V, I _C =14mA, f=800MHz		8.0		dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=100kHz			4.0	dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=200MHz			3.5	dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=500MHz, R _G =50Ω			5.0	dB
NF	V _{CE} =5.0V, I _C =2.0mA, f=800MHz		5.5		dB
P _o	V _{CE} =10V, I _C =14mA, f=205MHz	10			mW

R0 (9-August 2017)

CP317X-BFY90

NPN - RF Transistor Die
50mA, 15 Volt



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

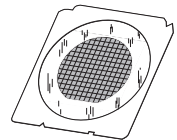
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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).

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