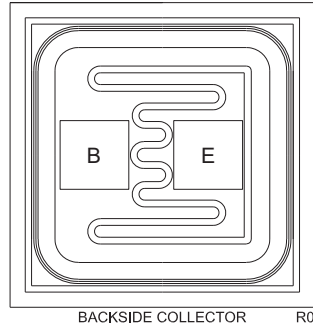


CP736V-2N3637

PNP - High Voltage Transistor Die

1.0 Amp, 175 Volt

The CP736V-2N3637 die is a PNP silicon transistor designed for high voltage amplifier applications.



MECHANICAL SPECIFICATIONS:

Die Size	17.3 x 17.3 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	3.9 x 3.9 MILS
Emitter Bonding Pad Size	3.9 x 3.9 MILS
Top Side Metalization	Al-Si - 17,000Å
Back Side Metalization	Au - 9,000Å
Scribe Alley Width	1.8 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	57,735

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	175	V
Collector-Emitter Voltage	V _{CEO}	175	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Continuous Collector Current	I _C	1.0	A
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =100V		100	nA
I _{EBO}	V _{EB} =3.0V		50	nA
BV _{CBO}	I _C =100μA	175		V
BV _{CEO}	I _C =10mA	175		V
BV _{EBO}	I _E =10μA	5.0		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.3	V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA		0.5	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA		0.8	V
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA	0.65	0.9	V
h _{FE}	V _{CE} =10V, I _C =0.1mA	80		
h _{FE}	V _{CE} =10V, I _C =1.0mA	90		
h _{FE}	V _{CE} =10V, I _C =10mA	100		
h _{FE}	V _{CE} =10V, I _C =50mA	100	300	
h _{FE}	V _{CE} =10V, I _C =150mA	50		
f _T	V _{CE} =30V, I _C =30mA, f=100MHz	200		MHz
C _{ob}	V _{CB} =20V, I _E =0, f=1.0MHz		10	pF
C _{ib}	V _{EB} =1.0V, I _C =0, f=1.0MHz		75	pF
t _{on}	[V _{CC} =100V, V _{BE} =4.0V, I _C =50mA,]		400	ns
t _{off}	[I _{B1} =I _{B2} =5.0mA]		600	ns

R1 (23-May 2017)

CP736V-2N3637

PNP - High Voltage Transistor Die
1.0 Amp, 175 Volt

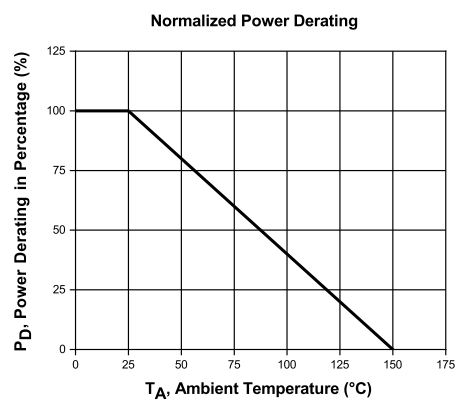
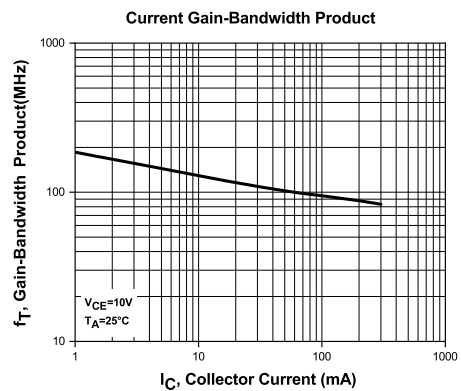
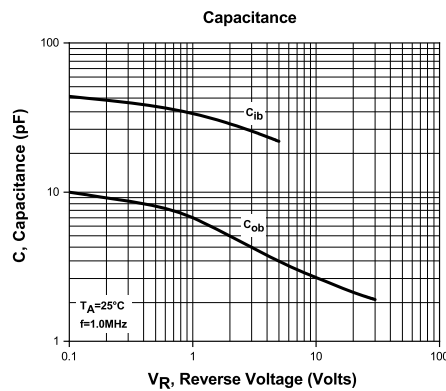
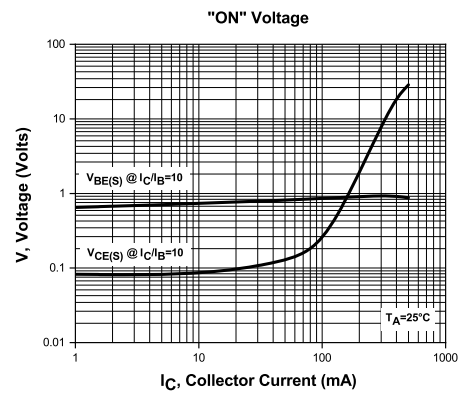
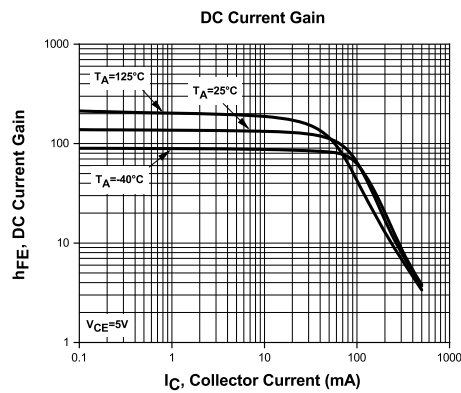


ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

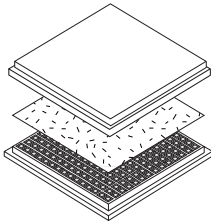
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{ie}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$	200	1200	Ω
h_{re}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$		3.0	$\times 10^{-4}$
h_{fe}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$	80	320	
h_{oe}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$		200	μS
NF	$V_{CE}=10\text{V}$, $I_C=0.5\text{mA}$, $f=1.0\text{kHz}$, $R_S=1.0\text{k}\Omega$		3.0	dB

CP736V-2N3637

Typical Electrical Characteristics



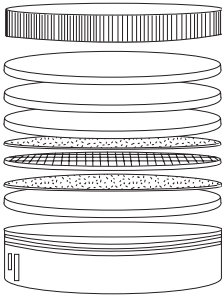
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

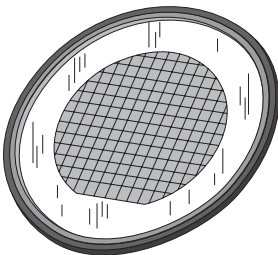
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

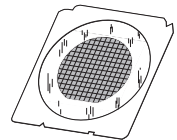
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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