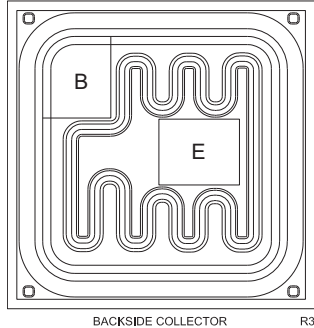


CP191V-2N2222A

NPN - Small Signal Transistor Die

The CP191V-2N2222A is a silicon NPN small signal transistor designed for general purpose switching applications.



MECHANICAL SPECIFICATIONS:

Die Size	16.5 x 16.5 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	3.5 x 4.3 MILS
Emitter Bonding Pad Size	3.5 x 4.3 MILS
Top Side Metalization	Al – 30,000Å
Back Side Metalization	Au-As – 9,000Å
Scribe Alley Width	1.96 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	62,510

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	75	V
Collector-Emitter Voltage	V _{CE0}	40	V
Emitter-Base Voltage	V _{EB0}	6.0	V
Continuous Collector Current	I _C	800	mA
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 _{CB0}	V _{CB} =60V		10	nA
I _{CEV}	V _{CE} =60V, V _{EB} =3.0V		10	nA
I _{EB0}	V _{EB} =3.0V		10	nA
BV _{CB0}	I _C =10μA	75		V
BV _{CE0}	I _C =10mA	40		V
BV _{EB0}	I _E =10μA	6.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.3	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		1.0	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA	0.6	1.2	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA		2.0	V
h _{FE}	V _{CE} =10V, I _C =0.1mA	35		
h _{FE}	V _{CE} =10V, I _C =1.0mA	50		
h _{FE}	V _{CE} =10V, I _C =10mA	75		
h _{FE}	V _{CE} =10V, I _C =150mA	100	300	
h _{FE}	V _{CE} =1.0V, I _C =150mA	50		
h _{FE}	V _{CE} =10V, I _C =500mA	40		
f _T	V _{CE} =20V, I _C =20mA, f=100MHz	300		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz		8.0	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=100kHz		25	pF

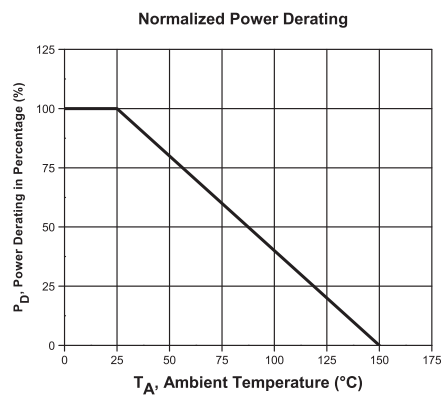
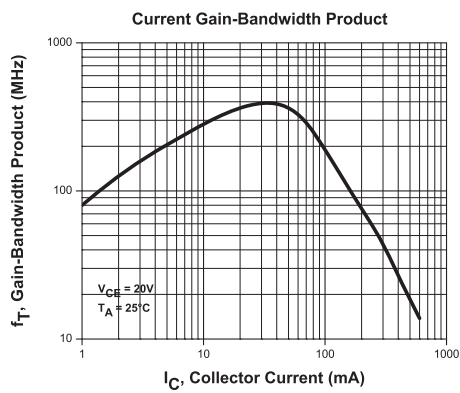
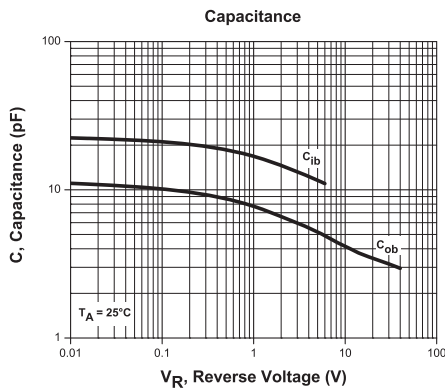
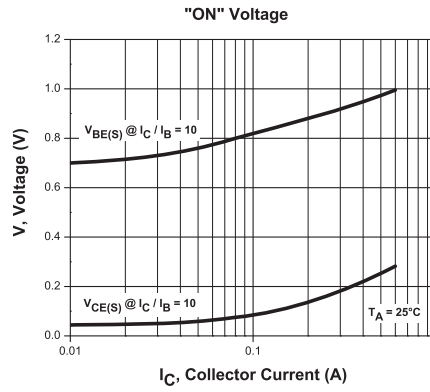
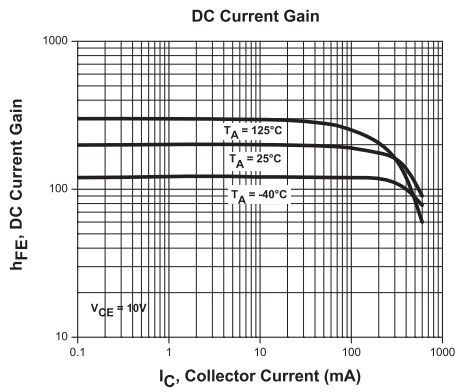
PACKING OPTIONS:

- CP191V-2N2222A-CT: Singulated die in waffle pack; 400 die per tray.
- CP191V-2N2222A-WN: Full wafer, unsawn, 100% tested with reject die inked.
- CP191V-2N2222A-WR: Full wafer, sawn and mounted on plastic ring, 100% tested with reject die inked.

R0 (6-March 2015)

CP191V-2N2222A

Typical Electrical Characteristics



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.

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- 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

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