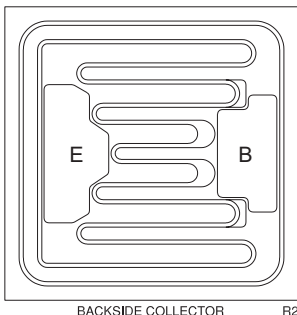


CP705V-2N4033

PNP - High Current Transistor Die

1.0 Amp, 80 Volt

The CP705V-2N4033 is a silicon PNP transistor designed for high current, general purpose amplifier applications.



MECHANICAL SPECIFICATIONS:

Die Size	31 x 31 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Area	5.9 x 8.4 MILS
Emitter Bonding Pad Area	4.7 x 13.8 MILS
Top Side Metalization	Al – 13,000Å
Back Side Metalization	Au – 12,000Å
Scribe Alley Width	1.89 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	24,504

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$)

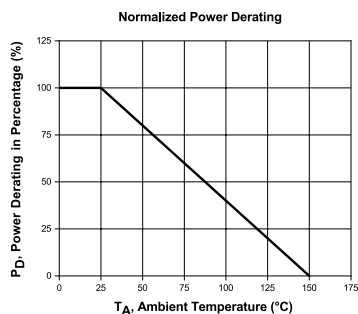
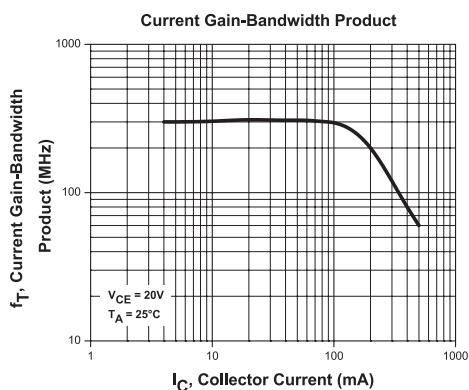
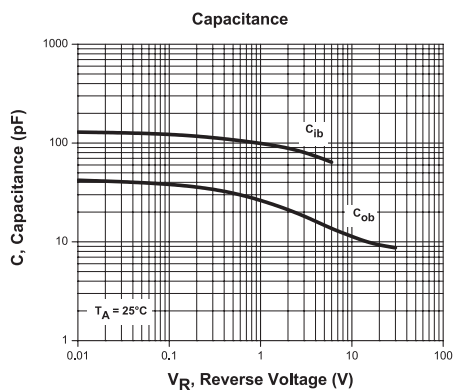
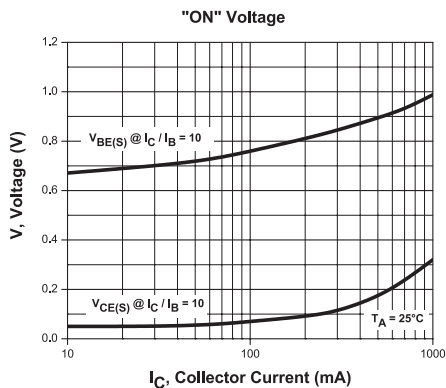
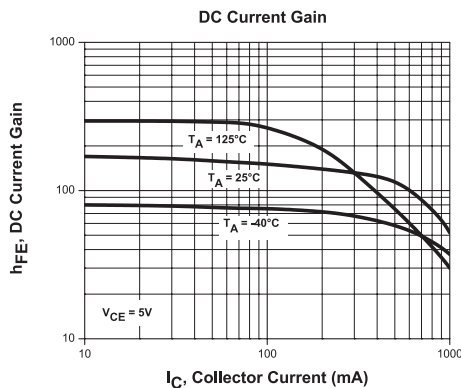
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	1.0	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$

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

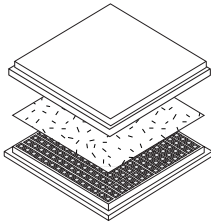
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=60\text{V}$		50	nA
I_{EBO}	$V_{EB}=5.0\text{V}$		10	μA
BV_{CBO}	$I_C=10\mu\text{A}$	80		V
BV_{CEO}	$I_C=10\text{mA}$	80		V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.15	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.50	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.90	V
$V_{BE(ON)}$	$V_{CE}=0.5\text{V}, I_C=500\text{mA}$		1.10	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=0.1\text{mA}$	75		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$	100	300	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=500\text{mA}$	70		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$	25		
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}$	100	400	MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		20	pF
t_{on}	$I_C=500\text{mA}, I_{B1}=50\text{mA}$		100	ns
t_s	$I_C=500\text{mA}, I_{B1}=I_{B2}=50\text{mA}$		350	ns
t_f	$I_C=500\text{mA}, I_{B1}=I_{B2}=50\text{mA}$		50	ns

CP705V-2N4033

Typical Electrical Characteristics



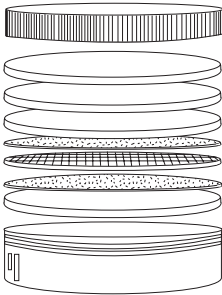
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

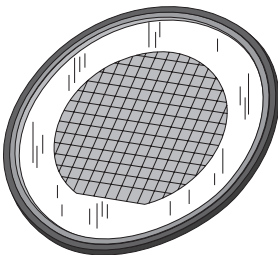
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

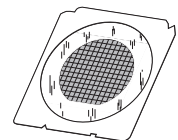
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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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