

All Transistors. 2N1305 Datasheet

BJT

MOSFET

IGBT

SCR

SMD CODE

PACKAGES

APPS

search

History: [2N301](#) | [2N1867](#)



[LIST](#)

Last Update

BJT: [D965-KEHE](#) |
[2SD662B](#) | [2SD661A](#) |
[2SC3080](#) | [S9018L](#) |
[S9012J](#) | [2SA73L](#) |
[2SA73H](#) | [2SA1015H](#) |
[WT955](#) | [TS13005CK](#) |

2N1305 Datasheet, Equivalent, Cross Reference Search

Type Designator: 2N1305

Material of Transistor: Ge

Polarity: PNP

Maximum Collector Power Dissipation (P_c): 0.15 W

Maximum Collector-Base Voltage [V_{cb}]: 30 V

Maximum Collector-Emitter Voltage [V_{ce}]: 20 V

Maximum Emitter-Base Voltage [V_{eb}]: 25 V

Maximum Collector Current [$I_{c \max}$]: 0.3 A

Max. Operating Junction Temperature (T_j): 85 °C

Transition Frequency (f_t): 4 MHz

Collector Capacitance (C_c): 20 pF

Forward Current Transfer Ratio (h_{FE}), MIN: 40

Noise Figure, dB: -

Package: **TO5**

[TP5001P3](#) | [SS8550W-L](#) |

[SS8550W-J](#) | [SS8550W-H](#) |

[SS8550E](#) | [SS8550D](#) |

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SMD code search

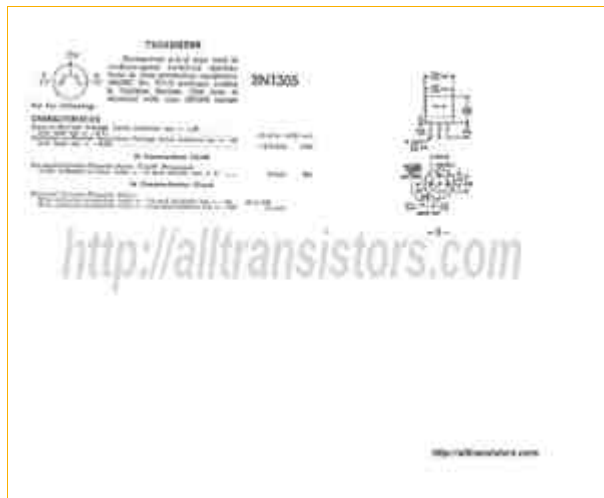


2N1305 Transistor Equivalent Substitute - Cross-Reference Search

2N1305 Datasheet (PDF)

..1. Size:199K rca

[2n1305.pdf](#) 



..2. Size:99K central

[2n1303 2n1305 2n1307 2n1309.pdf](#) 

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145 Adams Avenue
Hauppauge, New York 11788

2N1305
2N1306
2N1307
2N1308

PNP GERMANIUM TRANSISTOR
JEDEC VO-O CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N1305, 2N1306, 2N1307 and 2N1308 are Germanium PNP Transistors designed for computer and switching applications.

MAXIMUM RATINGS (TA = 25°C)

Collector Base Voltage	V _{CB0}	80V
Emitter Base Voltage	V _{EB0}	20V
Collector Current	I _C	200 mA
Power Dissipation	P _D	120 mW
Operating Junction Temperature	T _J	60°C
Storage Temperature	T _{stg}	-55 to 100°C

ELECTRICAL CHARACTERISTICS (TA = 25°C)

Symbol	Test Conditions	Type	Min.	Max.	Unit
I _{CB0}	V _{CB} = 20V	All	20	50	μA
I _{EB0}	V _{EB} = 20V	All	10	20	μA
V _{CB0}	I _C = 100 mA	All	20	-	V
V _{EB0}	I _C = 100 mA	All	20	-	V
h _{FE}	V _{CE} = 1V, I _C = 10 mA	2N1305	20	-	-
		2N1307	40	300	-
		2N1308	40	300	-
		2N1309	40	-	-
		2N1310	10	-	-
		2N1315	15	-	-
		2N1307	20	-	-
		2N1308	20	-	-
V _{CE(sat)}	I _C = 10 mA, I _B = 0.2 mA	2N1305	0.2	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1305	0.2	0	V
	I _C = 10 mA, I _B = 0.15 mA	2N1307	0.2	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1308	0.2	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1309	0.2	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1310	0.2	0	V
V _{BE(sat)}	I _C = 10 mA, I _B = 0.2 mA	2N1305	0.25	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1307	0.25	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1308	0.25	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1309	0.25	0	V
	I _C = 10 mA, I _B = 0.25 mA	2N1310	0.25	0	V

2N1305 to 2N1309 continued

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ELECTRICAL CHARACTERISTICS (TA = 25°C)

Symbol	Test Conditions	Type	Min.	Max.	Unit
h _{FE}	V _{CE} = 2V I _C = 1 mA f = 1 kHz	All	20	100	ohm
h _{FE}		All	7	25	ohm
h _{FE}		All	4	10	ohm
h _{FE}		All	10	20	ohm
h _{FE}		All	3	10	ohm
h _{FE}	V _{CE} = 5V, f = 1 MHz	All	20	100	ohm
h _{FE}	V _{CE} = 5V, f = 1 MHz	All	7	25	ohm
h _{FE}	I _C = 10 mA, I _B = 1.5 mA f _{max} = 0.7 MHz	All	0.06	0.10	sec
h _{FE}	V _{BE} (off) = 0.7V	All	0.75	0.80	sec
h _{FE}	h _{FE} = 10 ohm	All	0.25	0.30	ohm
h _{FE}	V _{CE} = 2V, I _C = 1 mA	2N1305	2	100	ohm
		2N1306	2	100	ohm
		2N1307	10	100	ohm
		2N1308	10	100	ohm

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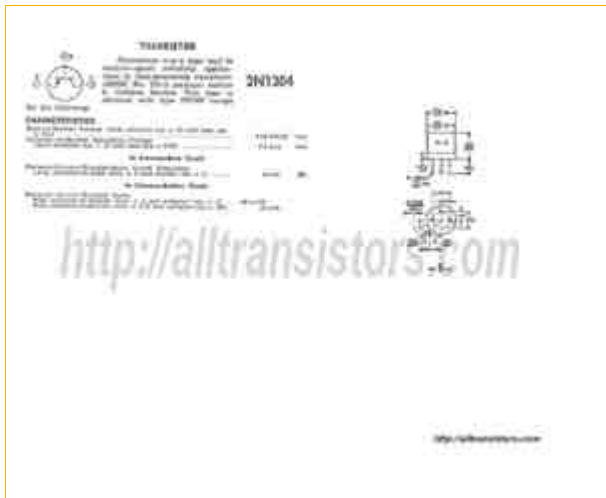
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[2n1301.pdf](#)



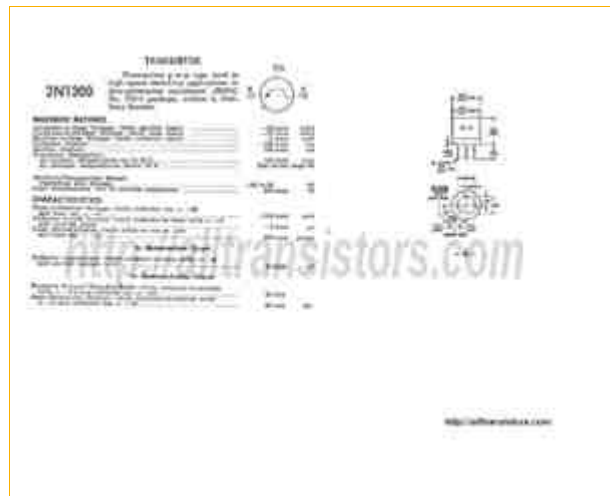
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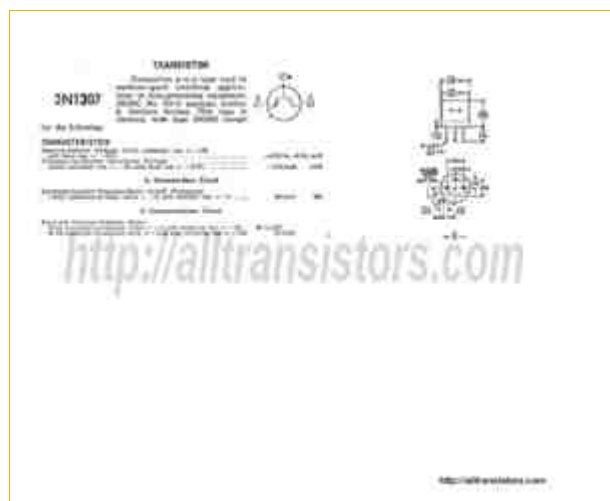
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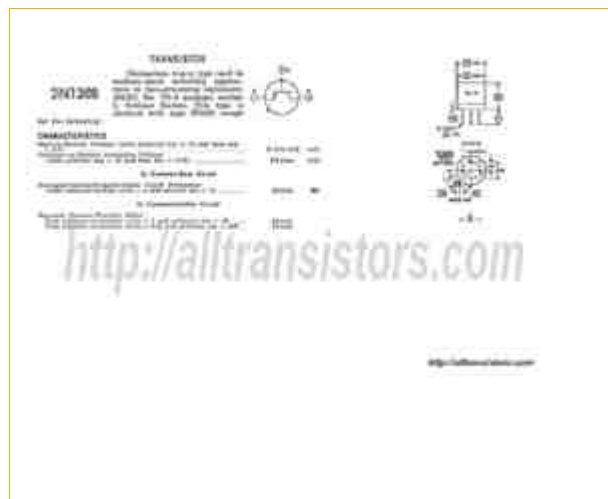
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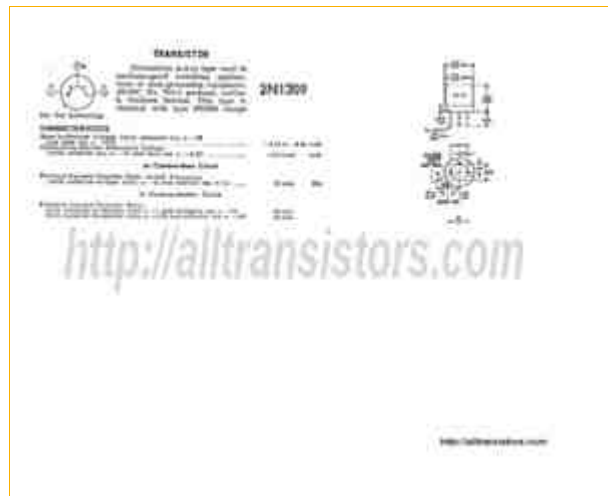
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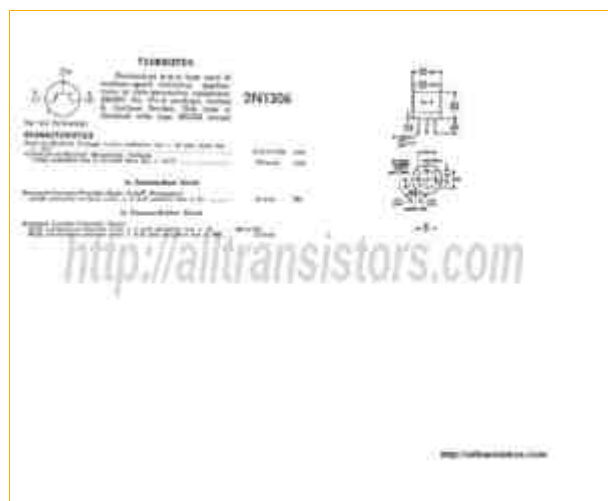
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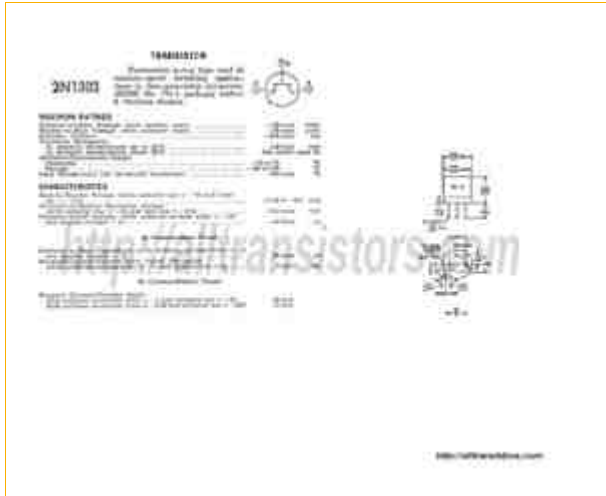
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Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, New York 11788

2N1298
2N1299
2N1300
2N1301

NPV GERMANIUM TRANSISTOR

SEEK TO 3 CASE


DESCRIPTION
The CENTRAL SEMICONDUCTOR 2N1298, 2N1299, 2N1300 and 2N1301 are Germanium NPV Transistors designed for computer and switching applications.

MAXIMUM RATINGS (TA = 25°C)

Collector Base Voltage	V _{CB0}	25V
Emitter Base Voltage	V _{EB0}	25V
Collector Current	I _C	300 mA
Power Dissipation	P _T	100 mW
Operating Junction Temperature	T _J	100°C
Storage Temperature	T _{stg}	-60 to 100°C

ELECTRICAL CHARACTERISTICS (TA = 25°C)

Symbol	Test Conditions	Typ.	Min.	Max.	Unit
V _{CB0}	V _{CB} = 25V	All	4.2	—	vA
V _{EB0}	V _{EB} = 25V	All	6.0	—	vA
V _{CE0}	I _C = 100 mA	All	23	—	V
V _{BE0}	I _C = 100 mA	All	20	—	V
M ₀	V _{CE} = 1V, I _C = 10 mA	2N1298	70	—	—
		2N1299	40	—	—
		2N1300	80	—	—
		2N1301	90	—	—
M ₁	V _{CE} = 0.2V, I _C = 100 mA	2N1298	18	—	—
		2N1299	18	—	—
		2N1300	20	—	—
		2N1301	20	—	—
M ₂	I _C = 10 mA, I _B = 0.1 mA	2N1298	—	0.2	μ
	I _C = 10 mA, I _B = 0.10 mA	2N1299	—	0.2	μ
	I _C = 10 mA, I _B = 0.17 mA	2N1300	—	0.2	μ
	I _C = 10 mA, I _B = 0.13 mA	2N1301	—	0.2	μ
M ₃	I _C = 10 mA, I _B = 0.1 mA	2N1298	0.12	0.40	μ
		2N1299	0.12	0.20	μ
		2N1300	0.12	0.20	μ
		2N1301	0.12	0.20	μ



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ELECTRICAL CHARACTERISTICS (TA = 25°C) (continued)

Symbol	Test Conditions	Typ.	Min.	Max.	Unit
h _{FE}	V _{CE} = 20V	All	24	typ.	—
h _{FE}	I _C = 1 mA	All	3	typ.	—
h _{FE}	I _C = 10 mA	All	0.24	typ.	—
f _T		All	1.60	typ.	—
C _{ob}	V _{CE} = 20V, f = 1 MHz	All	3	typ.	—
C _{ib}	V _{BE} = 20V, f = 1 MHz	All	20	typ.	—
I _C	I _C = 10 mA, I _B = 1.0 mA	All	0.99	typ.	—
I _E	I _E = 0.7 mA	All	0.2	typ.	—
V _{BE} (off)	V _{BE} (off) = 0.0V	All	0.7	typ.	—
I _B	I _B = 100 μA	All	0.4	typ.	—
V _{CE}	V _{CE} = 20V, I _C = 1 mA	2N1298	2	—	—
		2N1299	18	—	—
		2N1300	18	—	—



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Datasheet: [2N1298](#) , [2N1299](#) , [2N130](#) , [2N1300](#) , [2N1301](#) , [2N1302](#) , [2N1303](#) , [2N1304](#) , [A42](#) , [2N1306](#) , [2N1307](#) , [2N1308](#) , [2N1309](#) , [2N1309A](#) , [2N130A](#) , [2N131](#) , [2N1310](#) .

History: [2N301](#) | [2N1867](#)



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