

CentralTM Semiconductor Corp.

145 Adams Ave., Hauppauge, NY 11788 USA
Phone (516) 435-1110 FAX (516) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N2604
2N2605

PNP SILICON TRANSISTOR

JEDEC TO-46 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N2604, 2N2605 types are Silicon PNP Transistors designed for low-level, low noise, high gain amplifier applications.

MAXIMUM RATINGS (T_A = 25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	30	mA
Power Dissipation	P _D	400	mW
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +200	°C
Thermal Resistance	θ _{JA}	438	°C/W

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

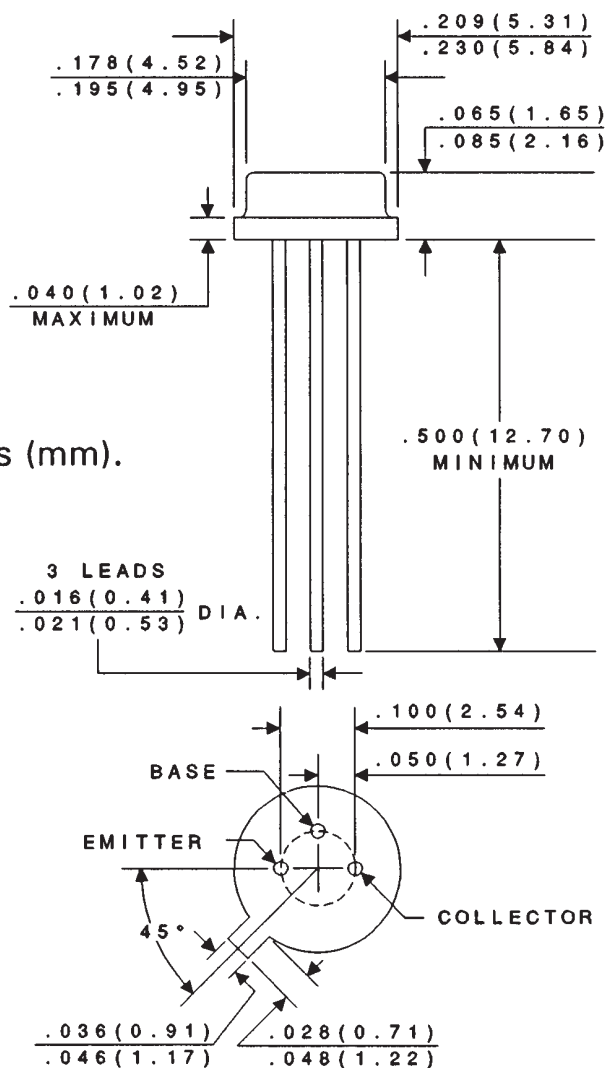
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CES}	V _{CE} = 45V		10	nA
I _{CES}	V _{CE} = 45V, T _A = 170°C		10	μA
I _{CBO}	V _{CB} = 45V		10	nA
I _{EBO}	V _{EB} = 5.0V		2.0	nA
BV _{CBO}	I _C = 10μA	60		V
BV _{CEO}	I _C = 10mA	45		V
BV _{EBO}	I _E = 10μA	6.0		V
V _{CE(SAT)}	I _C = 10mA, I _B = 0.5mA		0.5	V
V _{BE(SAT)}	I _C = 10mA, I _B = 0.5mA	0.7	0.9	V
h _{FE}	V _{CE} = 5.0V, I _C = 10μA (2N2604)	40	120	-
h _{FE}	V _{CE} = 5.0V, I _C = 10μA (2N2605)	100	300	-
h _{FE}	V _{CE} = 5.0V, I _C = 10μA, T _A = -55°C (2N2604)	10		-
h _{FE}	V _{CE} = 5.0V, I _C = 10μA, T _A = -55°C (2N2605)	20		-
h _{FE}	V _{CE} = 5.0V, I _C = 500μA (2N2604)	60		-
h _{FE}	V _{CE} = 5.0V, I _C = 500μA (2N2605)	150		-
h _{FE}	V _{CE} = 5.0V, I _C = 10mA (2N2604)		350	-
h _{FE}	V _{CE} = 5.0V, I _C = 10mA (2N2605)		600	-

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
f_T	$V_{CE}=5.0V, I_C=500\mu A, f=30MHz$	30		MHz
C_{ob}	$V_{CB}=5.0V, I_E=0, f=1.0MHz$		6.0	pF
h_{ie}	$V_{CE}=5.0V, I_C=1.0mA, f=100MHz$		200	Ω
h_{ib}	$V_{CB}=5.0V, I_E=1.0mA, f=1.0kHz$	25	35	Ω
h_{rb}	$V_{CB}=5.0V, I_E=1.0mA, f=1.0kHz$		10	10^{-4}
h_{ob}	$V_{CB}=5.0V, I_E=1.0mA, f=1.0kHz$		1.0	μmho
h_{fe}	$V_{CB}=5.0V, I_E=1.0mA, f=1.0kHz$ (2N2604)	60	350	-
h_{fe}	$V_{CB}=5.0V, I_E=1.0mA, f=1.0kHz$ (2N2605)	150	600	-
NF	$V_{CE}=5.0V, I_C=10\mu A, R_G=10k\Omega, f=10Hz$ to 15.7kHz (2N2604)		4.0	dB
NF	$V_{CE}=5.0V, I_C=10\mu A, R_G=10k\Omega, f=10Hz$ to 15.7kHz (2N2605)		3.0	dB

JEDEC TO-46 - MECHANICAL OUTLINE



All Dimensions in Inches (mm).