NEC

PNP SILICON TRANSISTOR 2SA1175

DESCRIPTION The 2SA1175 is designed for use in driver stage of AF amplifier.

FEATURES

High h_{FE} and excellent linearity

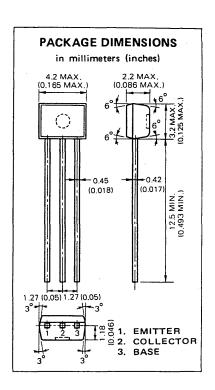
: 200 TYP.

 $h_{FE} (I_C = -1.0 \text{ mA})$

• Complementary to the NEC 2SC2785 NPN transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures
Storage Temperature
Junction Temperature +150 °C Maximum
Maximum Power Dissipation (Ta = 25 °C)
Total Power Dissipation
Maximum Voltages and Currents (Ta = 25 °C)
V _{CBO} Collector to Base Voltage60 V
V _{CEO} Collector to Emitter Voltage
V _{EBO} Emitter to Base Voltage
I _C Collector Current
IB Base Current



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

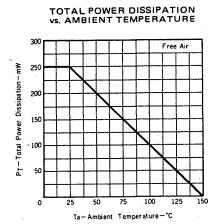
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
hFE	DC Current Gain	110	200	600	_	V _{CE} =-6.0 V, I _C =-1.0 mA
NF	Noise Figure		6.0	20	dB	V_{CE} =-6.0 V, I_{C} =-0.3 mA, R_{G} =10 k Ω , f=100 Hz
fT	Gain Bandwidth Product	50	180		MHz	V_{CE} =-6.0 V, I_{E} =-1.0 mA
Cob	Output Capacitance		4.5	6.0	рF	V _{CB} =-10 V, I _E =0, f=1.0 MHz
ІСВО	Collector Cutoff Current			-0.1	μΑ	V _{CB} =-60 V, I _E =0
I _{EBO}	Emitter Cutoff Current			-0.1	μΑ	V _{EB} =-5.0 V, I _C =0
VBE	Base to Emitter Voltage	-0.58	-0.62	-0.68	V	V _{CE} =-6.0 V, I _C =-1.0 mA
VCE(sat)	Collector Saturation Voltage		-0.18	-0.3	٧	IC=-100 mA, IB=-10 mA

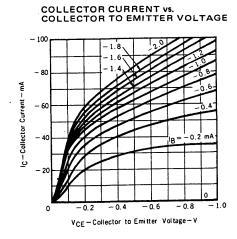
Classification of h_{FE}

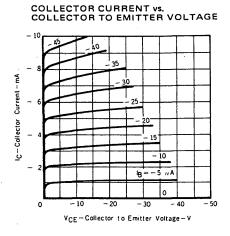
Rank	RF	JF	HF	FF	EF	KF
Range	110 – 180	135 – 220	170 – 270	200 – 320	250 – 400	300 – 600

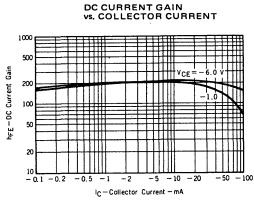
hFE Test Conditions: VCE=-6.0 V, IC=-1.0 mA

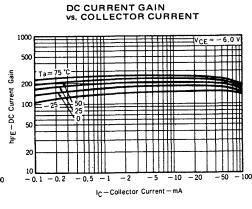
TYPICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

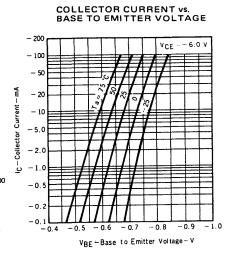


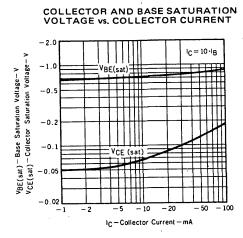


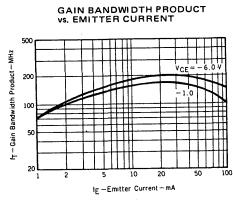


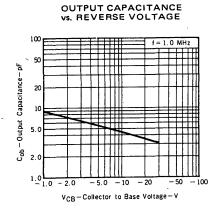




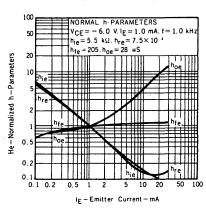




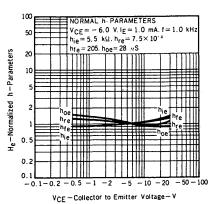




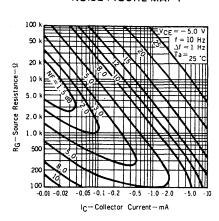
NORMALIZED h-PARAMETERS vs. EMITTER CURRENT



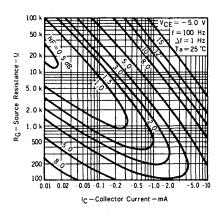
NORMALIZED h-PARAMETERS vs. COLLECTOR TO EMITTER VOLTAGE



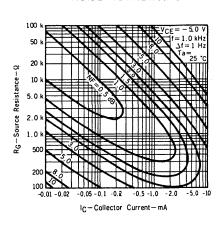
NOISE FIGURE MAP 1



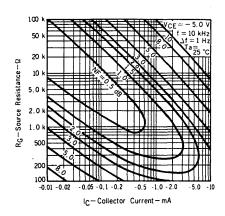
NOISE FIGURE MAP 2



NOISE FIGURE MAP 3



NOISE FIGURE MAP 4



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