NEC

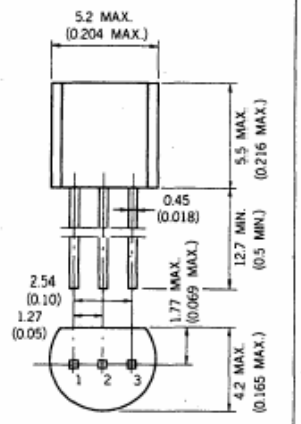
PNP SILICON TRANSISTOR
2SA733

DESCRIPTION The 2SA733 is designed for use in driver stage of AF amplifier.

FEATURES

- High h_{FE} and Excellent Linearity : 200 TYP.
  h_{FE} (V_{CE} = −6.0 V, I_C = −1.0 mA)

PACKAGE DIMENSIONS
in millimeters (inches)



1. EMITTER
2. COLLECTOR
3. BASE

EIAJ : SC-43B
JEDEC : TO-92
IEC : PA33

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

- Storage Temperature . . . . . −55 to +125 °C
- Junction Temperature . . . . . +125 °C Maximum

Maximum Power Dissipation (Ta = 25 °C)

- Total Power Dissipation . . . . . 250 mW

Maximum Voltages and Currents (Ta = 25 °C)

- V_{CBO} Collector to Base Voltage . . . . . −60 V
- V_{CEO} Collector to Emitter Voltage . . . . . −50 V
- V_{EBO} Emitter to Base Voltage . . . . . −5.0 V
- I_C Collector Current . . . . . −100 mA
- I_B Base Current . . . . . −20 mA

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE}	DC Current Gain	90	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 kΩ, f = 100 Hz
f_T	Gain Bandwidth Product	100	180		MHz	V_{CE} = −6.0 V, I_E = 10 mA
C_{ob}	Output Capacitance		4.5	6.0	pF	V_{CB} = −10 V, I_E = 0, f = 1.0 MHz
I_{CBO}	Collector Cutoff Current			−0.1	μA	V_{CB} = −60 V, I_E = 0
I_{EBO}	Emitter Cutoff Current			−0.1	μA	V_{EB} = −5.0 V, I_C = 0
V_{BE}	Base to Emitter Voltage	−0.58	−0.62	−0.68	V	V_{CE} = −6.0 V, I_C = −1.0 mA
$V_{CE(sat)}$	Collector Saturation Voltage		−0.18	−0.3	V	I_C = −100 mA, I_B = −10 mA

Classification of h_{FE}

Rank	R	Q	P	K
Range	90 – 180	135 – 270	200 – 400	300 – 600

h_{FE} Test Conditions : V_{CE} = −6.0 V, I_C = −1.0 mA

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