

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)

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +125 °C

Junction Temperature +125 °C Maximum

Maximum Power Dissipation ($T_a = 25$ °C)

Total Power Dissipation 250 mW

Maximum Voltages and Currents ($T_a = 25$ °C)

V_{CBO} Collector to Base Voltage -60 V

V_{CEO} Collector to Emitter Voltage -50 V

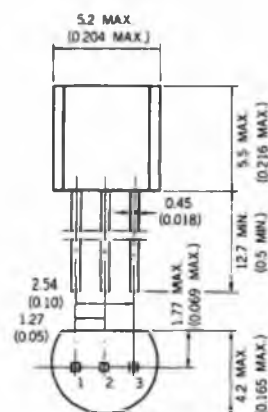
V_{EBO} Emitter to Base Voltage -5.0 V

I_C Collector Current -100 mA

I_B Base Current -20 mA

PACKAGE DIMENSIONS

in millimeters (inches)



1. EMITTER EIAJ : SC-43B
2. COLLECTOR JEDEC : TO-92
3. BASE IEC : PA33

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °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, $R_G = 10$ k Ω , $f = 100$ 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	μ A	$V_{CB} = -60$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			-0.1	μ A	$V_{EB} = -5.0$ 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