

2SC1844

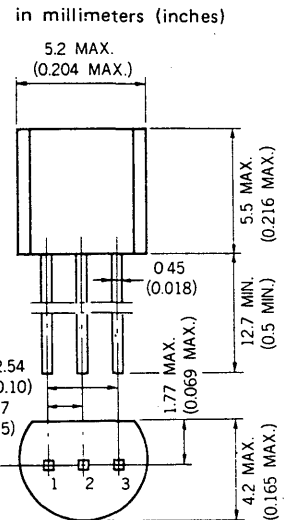
DESCRIPTION The 2SC1844 is the best for the head amplifier of tape recorders, the equalizer of moving coil type record players, and etc.

- FEATURES**
- Super Low Noise. $NV : 30 \text{ mV TYP. (See test circuit.)}$
 - High h_{FE} . $h_{FE} : 400 \text{ TYP. (} V_{CE} = 6.0 \text{ V, } I_C = 1.0 \text{ mA)}$
 - Complementary to 2SA991.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures	
Storage Temperature -55 to +125 °C
Junction Temperature +125 °C Maximum
Maximum Power Dissipation ($T_a = 25 \text{ °C}$)	
Total Power Dissipation 500 mW
Maximum Voltages and Currents ($T_a = 25 \text{ °C}$)	
V_{CBO} Collector to Base Voltage 60 V
V_{CEO} Collector to Emitter Voltage 60 V
V_{EBO} Emitter to Base Voltage 5.0 V
I_C Collector Current 100 mA
I_B Base Current 20 mA

PACKAGE DIMENSIONS



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

ELECTRICAL CHARACTERISTICS ($T_a = 25 \text{ °C}$)

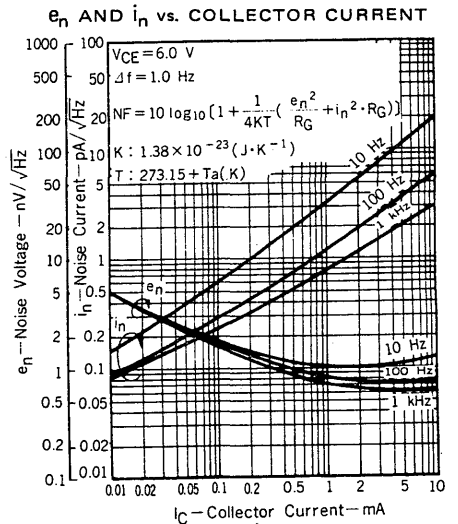
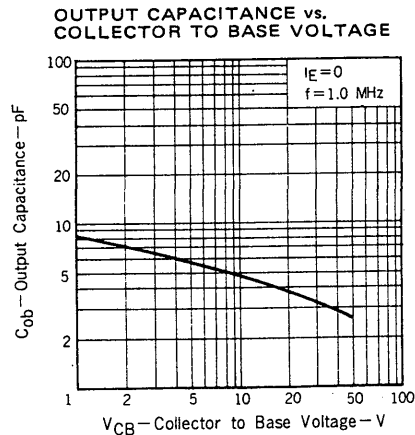
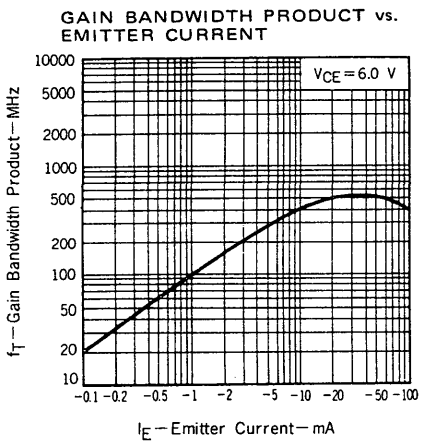
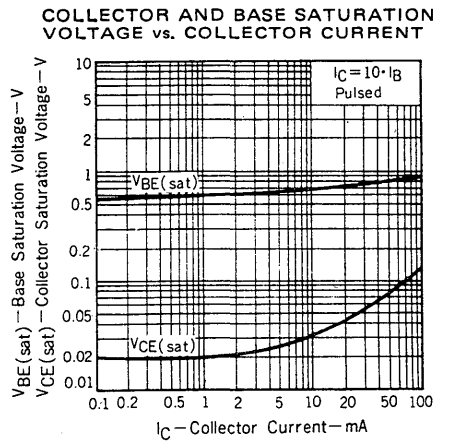
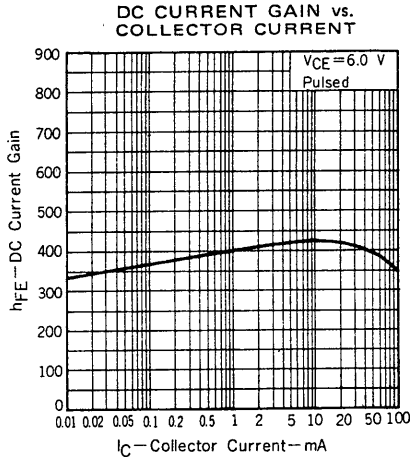
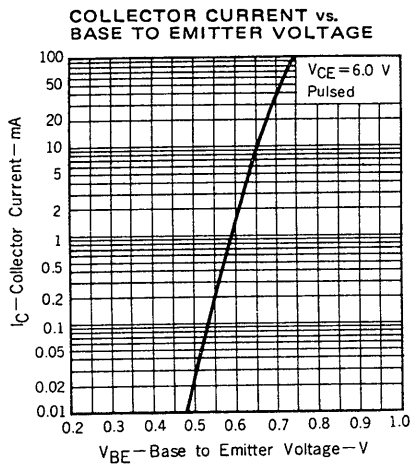
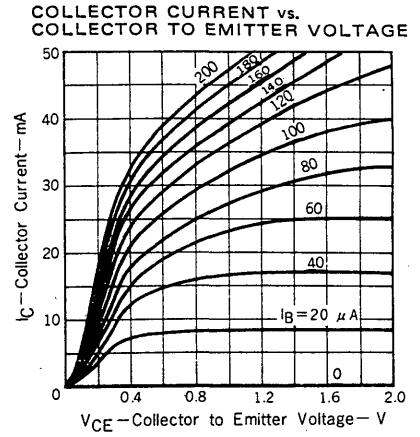
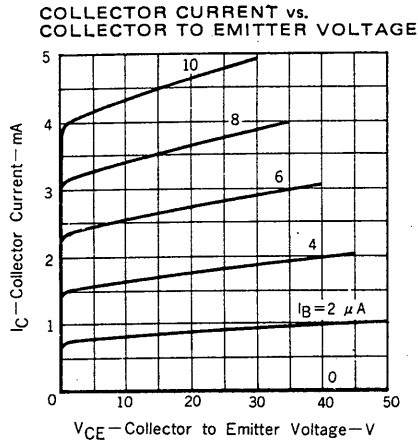
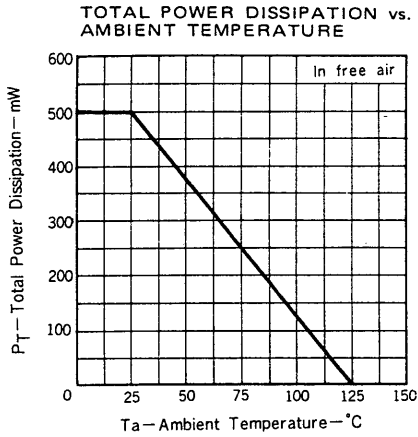
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}	DC Current Gain	150	370		—	$V_{CE} = 6.0 \text{ V, } I_C = 0.1 \text{ mA}$
h_{FE2}	DC Current Gain	200	400	800	—	$V_{CE} = 6.0 \text{ V, } I_C = 1.0 \text{ mA}$
f_T	Gain Bandwidth Product	50	100		MHz	$V_{CE} = 6.0 \text{ V, } I_E = -1.0 \text{ mA}$
C_{ob}	Output Capacitance		4.8	8.0	pF	$V_{CB} = 10 \text{ V, } I_E = 0, f = 1.0 \text{ MHz}$
NV	Noise Voltage		30	45	mV	$V_{CE} = 5.0 \text{ V, } I_C = 1.0 \text{ mA, } R_G = 100 \text{ k}\Omega$ $G_v = 80 \text{ dB, } f = 10 \text{ Hz to } 1.0 \text{ kHz}$
I_{CBO}	Collector Cutoff Current			50	nA	$V_{CB} = 60 \text{ V, } I_E = 0$
I_{EBO}	Emitter Cutoff Current			50	nA	$V_{EB} = 5.0 \text{ V, } I_C = 0$
V_{BE}	Base to Emitter Voltage	0.55	0.59	0.65	V	$V_{CE} = 6.0 \text{ V, } I_C = 1.0 \text{ mA}$
$V_{CE(sat)}$	Collector Saturation Voltage		0.13	0.30	V	$I_C = 100 \text{ mA, } I_B = 10 \text{ mA}$

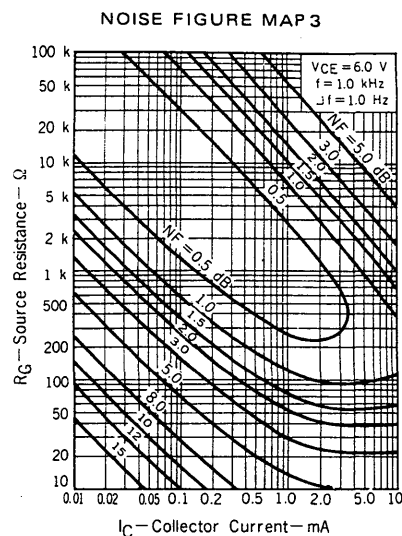
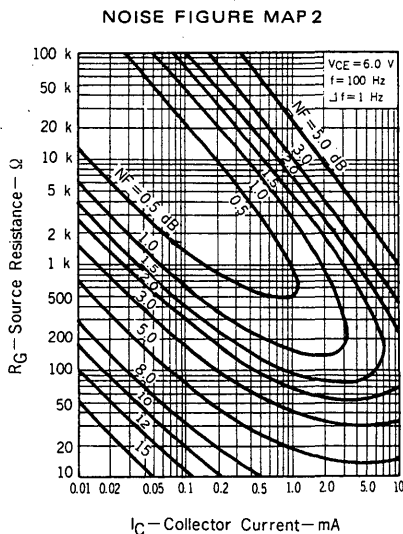
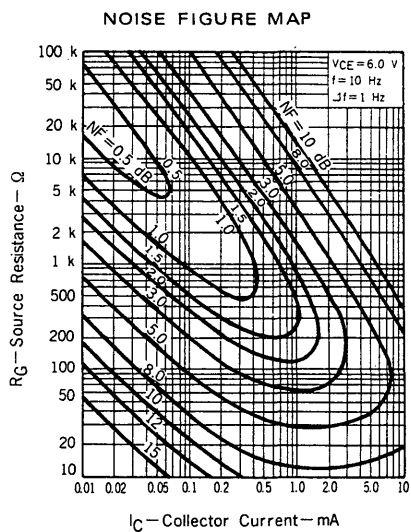
Classification of h_{FE2}

Rank	P	F	E
Range	200 - 400	300 - 600	400 - 800

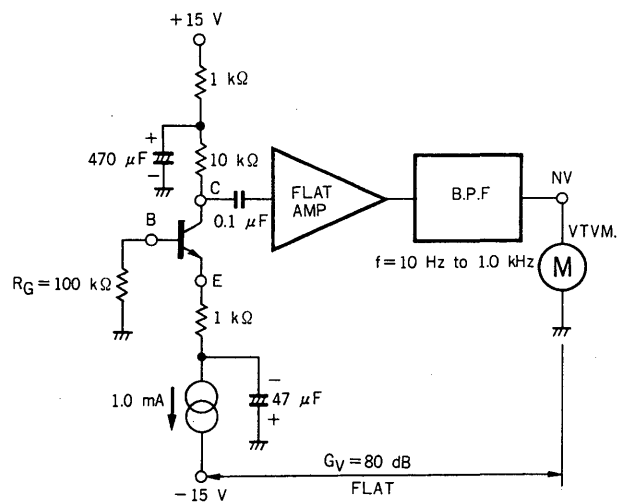
h_{FE} Test Conditions : $V_{CE} = 6.0 \text{ V, } I_C = 1.0 \text{ mA}$

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





NOISE VOLTAGE TEST CIRCUIT



$V_{CE} = 5$ V, $I_C = 1.0$ mA, $R_G = 100$ k Ω , $G_V = 80$ dB FLAT ($f = 10$ Hz to 1.0 kHz)

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.