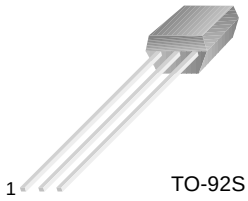
FAIRCHILD
SEMICONDUCTOR®

KSB810

Audio Frequency Amplifier

- Complement to KSD1020



TO-92S

1.Emitter 2. Collector 3. Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current (DC)	-700	mA
I_{CP}	* Collector Current (Pulse)	-1.0	A
P_C	Collector Power Dissipation	350	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

* PW≤10ms, Duty cycle≤50%

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	V_{CB}= -30V, I_E=0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -5V, I_C=0			-100	nA
h_{FE1} h_{FE2}	* DC Current Gain	V_{CE}= -1V, I_C= -100mA V_{CE}= -1V, I_C= -700mA	70 35	200 100	400	
V_{BE} (on)	* Base-Emitter on Voltage	V_{CE}= -6V, I_C= -10mA	-600	-640	-700	mV
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C= -700mA, I_B= -70mA		-0.25	-0.4	V
V_{BE} (sat)	* Base-Emitter Saturation Voltage	I_C= -700mA, I_B= -70mA		-0.95	-1.2	V
C_{ob}	Output Capacitance	V_{CB}= -6V, I_E=0, f=1MHz		17	40	pF
f_T	Current Gain Bandwidth Product	V_{CE}= -6V, I_C=-10mA	50	160		MHz

* Pulse Test: PW≤350μs, Duty cycle≤2%

h_{FE} Classification

Classification	O	Y	G
h_{FE1}	70 ~ 140	120 ~ 240	200 ~ 400

Typical Characteristics

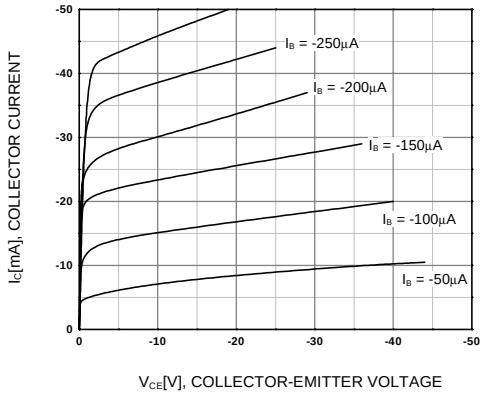


Figure 1. Static Characteristic

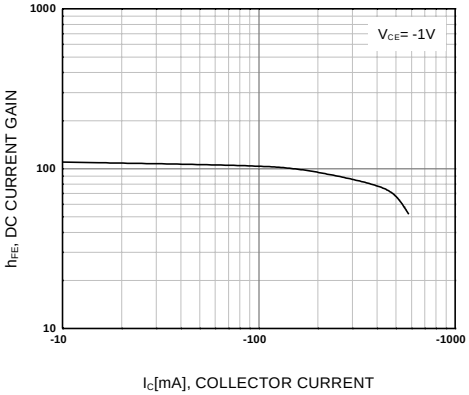


Figure 2. DC current Gain

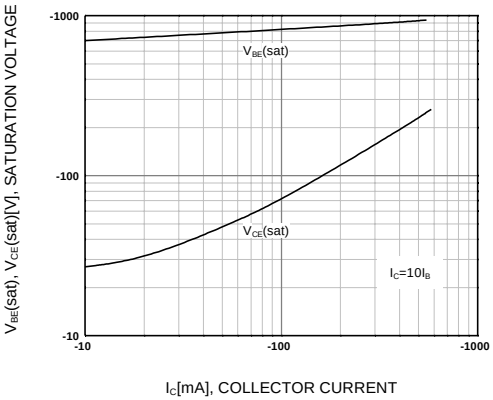


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

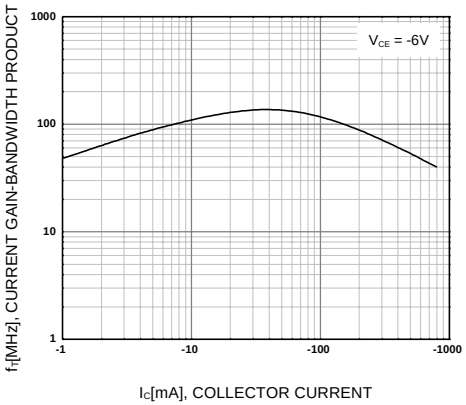
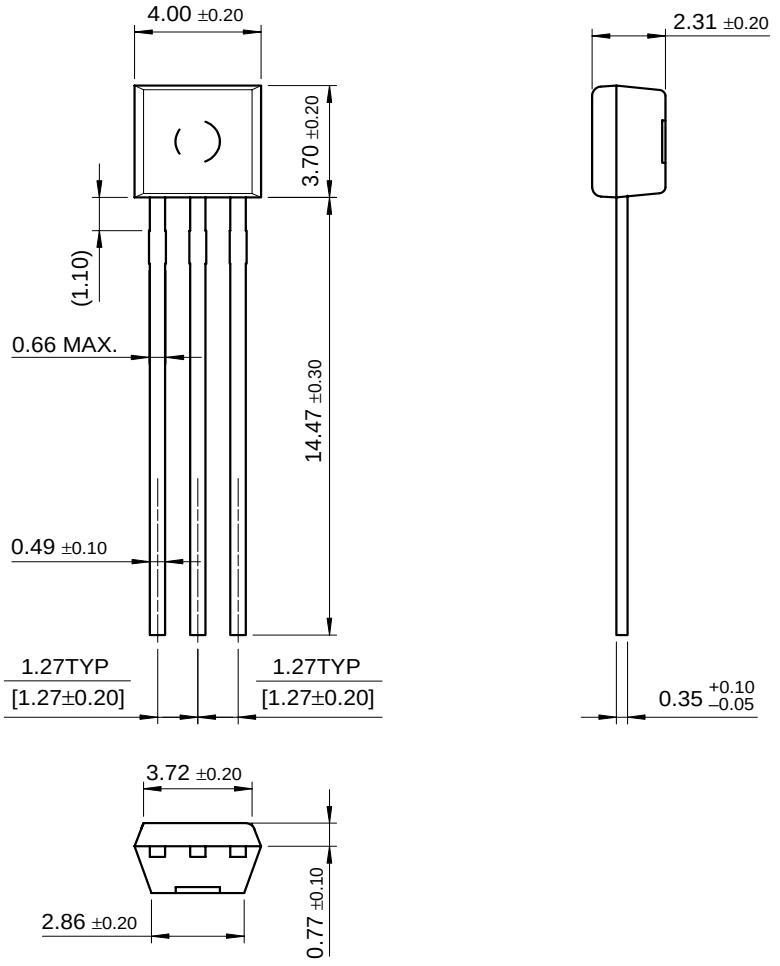


Figure 4. Current Gain Bandwidth Product

Package Demensions

TO-92S



Dimensions in Millimeters

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E^2CMOS™	LittleFET™	QT Optoelectronics™	TinyLogic™
EnSigna™	MicroFET™	Quiet Series™	UHC™
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