FAIRCHILD

SEMICONDUCTOR®

KSD1020

Audio Frequency Amplifier

Complement to KSB810



1.Emitter 2. Collector 3. Base

NPN 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	А
P _C	Collector Power Dissipation	350	mW
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 ~ 150	°C

* PW≤10ms, Duty Cycle≤50%

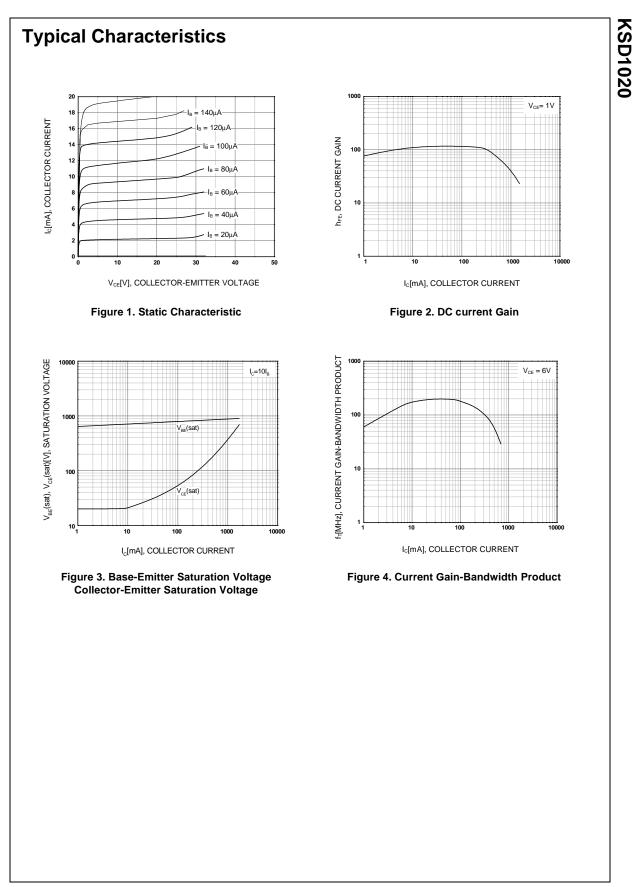
Electrical Characteristics $T_a=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	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}	* DC Current Gain	V _{CE} =1V, I _C =100mA	120	200	400	
h _{FE2}		V _{CE} =1V, I _C =700mA	35	140		
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		0.2	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		13	25	pF
f _T	Current Gain Bandwidth Product	V _{CE} =6V, I _C =10mA	50	170		MHz

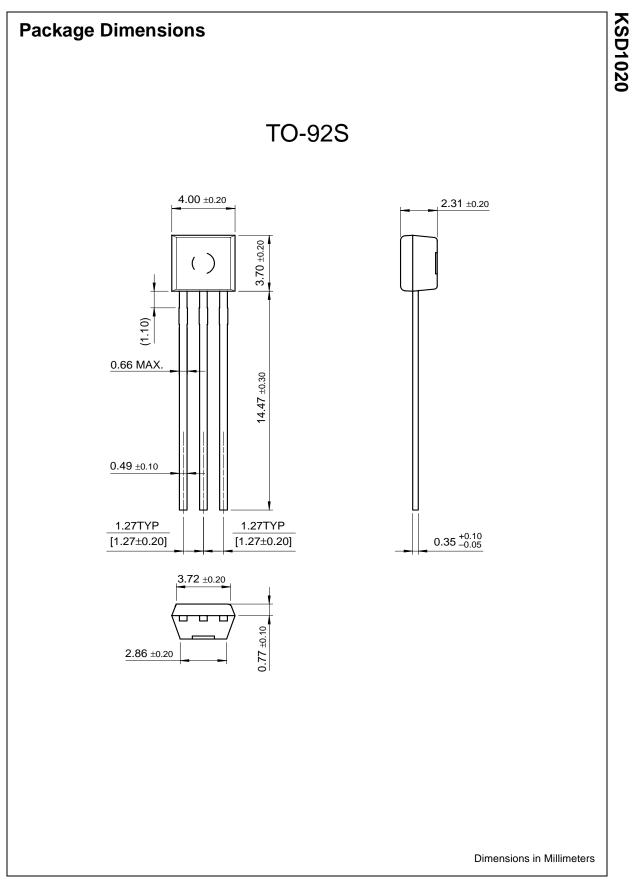
* Pulse Test: PW≤350µs, Duty Cycle≤ 2%

h_{FE1} Classification

Classification	Y	G
h _{FE1}	120 ~ 240	200 ~ 400



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FACT™	<i>i-Lo</i> ™	OCX™	RapidConfigure™	TruTranslation™
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The Power Franchise [®]		OPTOLOGIC®	SILENT SWITCHER [®]	UltraFET [®]
Programmable A	ctive Droop™	OPTOPLANAR™	SMART START™	VCX™

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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