

FAIRCHILD
SEMICONDUCTOR®

KSC2710

Low Frequency Power Amplifier

- Complement to KSA1150
- Collector Dissipation : $P_C=300\text{mW}$



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	300	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}, I_E=0$	40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}, I_B=0$	20			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}, I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=25\text{V}, I_E=0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=3\text{V}, I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=1\text{V}, I_C=0.1\text{A}$	120		400	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}, I_B=50\text{mA}$		0.18	0.4	V

h_{FE} Classification

Classification	Y	G
h_{FE}	120 ~ 240	200 ~ 400



Typical Characteristics

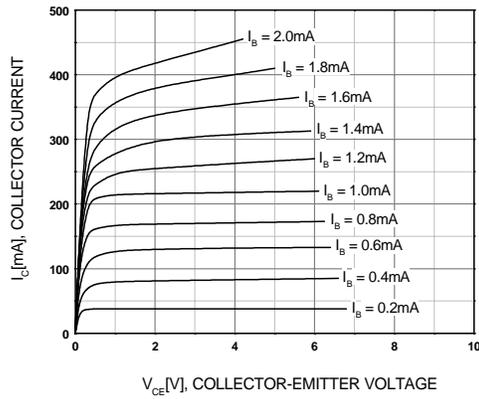


Figure 1. Static Characteristic

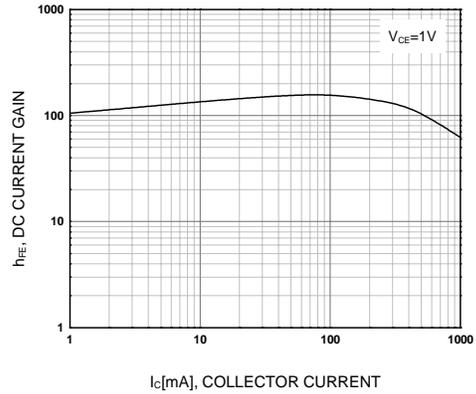


Figure 2. DC current Gain

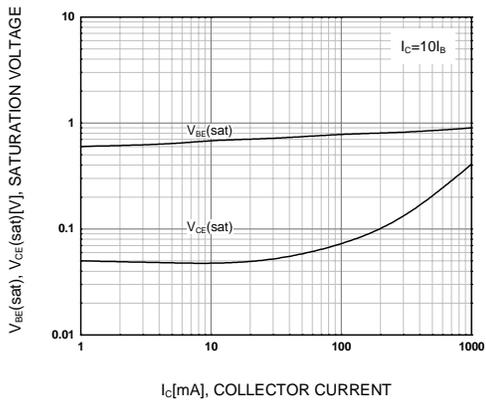


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

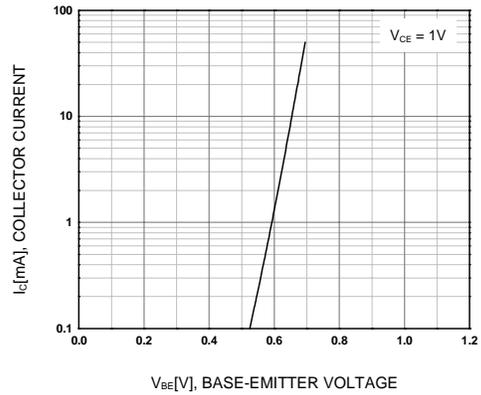


Figure 4. Base-Emitter On Voltage

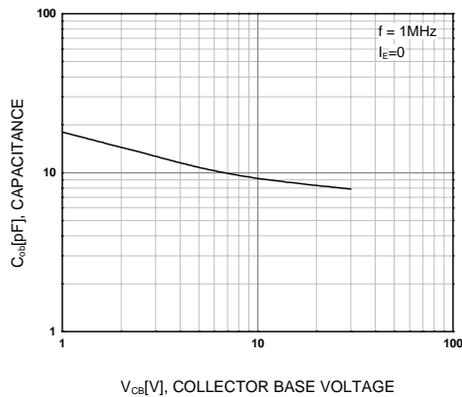
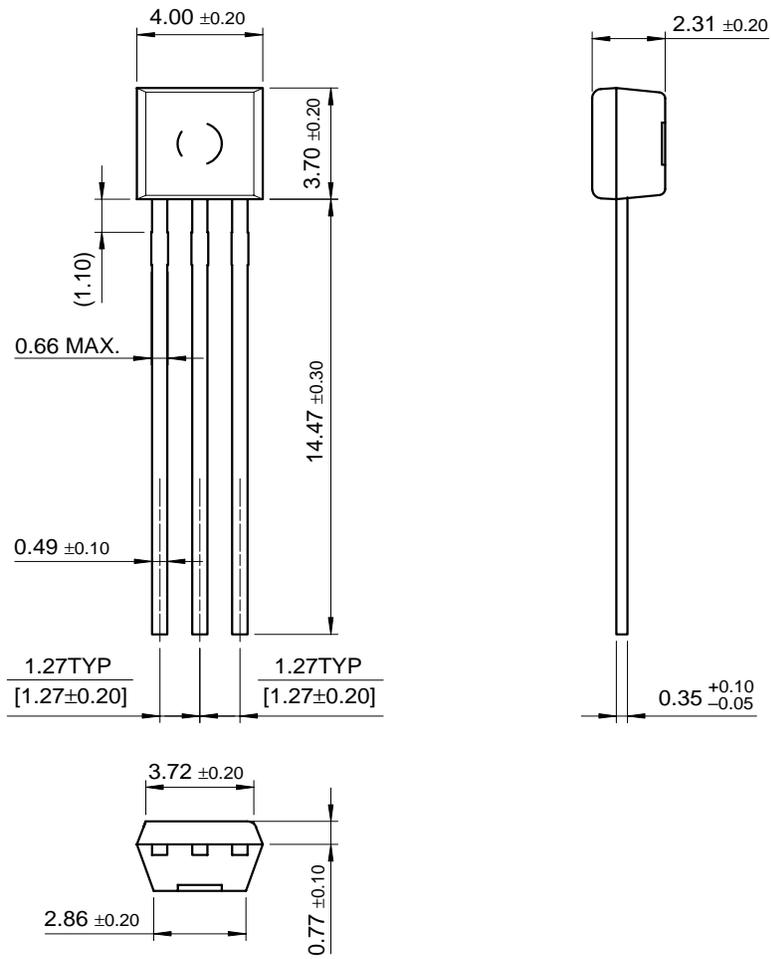


Figure 5. Collector Output Capacitance

Package Dimensions

TO-92S



Dimensions in Millimeters

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Programmable Active Droop™		OPTOPLANAR™	SMART START™	VCX™

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