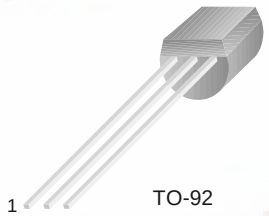
FAIRCHILD SEMICONDUCTOR®

KSA733

Low Frequency Amplifier

- Collector-Base Voltage : V_{CBO}= -60V
- Complement to KSC945
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



TO-92

1. Emitter 2. Base 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-150	mA
P_C	Collector Power Dissipation	250	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C= -100μA, I_E=0	-60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C= -10mA. I_B=0	-50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -10μA. I_C=0	- 5			V
I_{CBO}	Collector Cut-off Current	V_{CB}= --60V, I_E=0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -5V, I_C=0			-100	nA
h_{FE}	DC Current Gain	V_{CE}= -6V, I_C= -1mA	40		700	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C= -100mA, I_B= -10mA		-0.18	-0.3	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}= -6V, I_C= -1mA	-0.50	-0.62	-0.80	V
f_T	Current Gain Bandwidth Product	V_{CE}= -6V, I_C= -10mA	50	180		MHz
C_{ob}	Output Capacitance	V_{CB}= -10V, I_E = 0, f=1MHz		2.8		pF
NF	Noise Figure	V_{CE}= -6V, I_C= -0.3mA f=1MHz, Rs=10kΩ		6.0	20	dB

h_{FE} Classification

Classification	R	O	Y	G	L
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700

Typical Characteristics

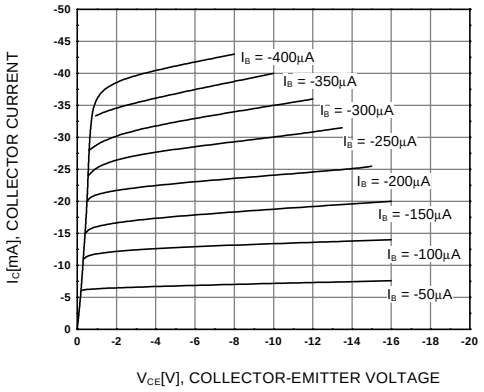


Figure 1. Static Characteristic

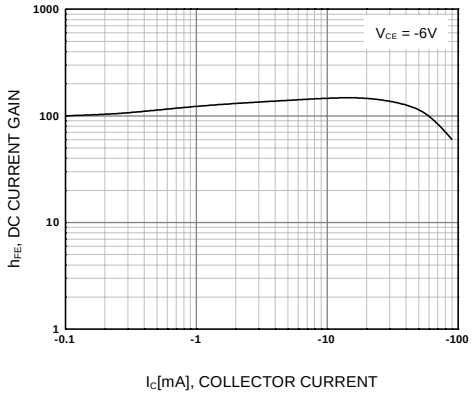


Figure 2. DC current Gain

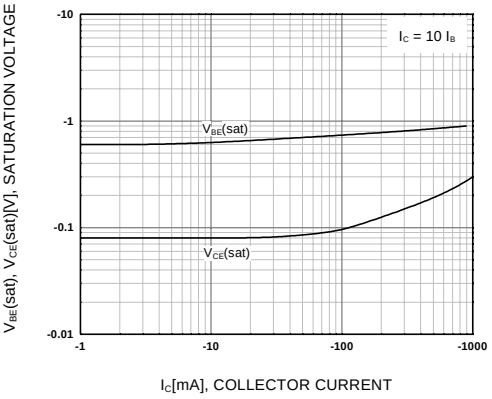


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

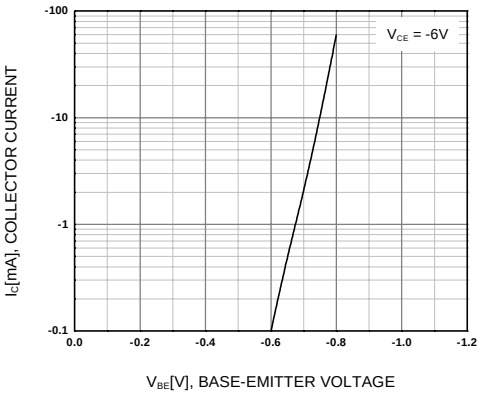


Figure 4. Base-Emitter On Voltage

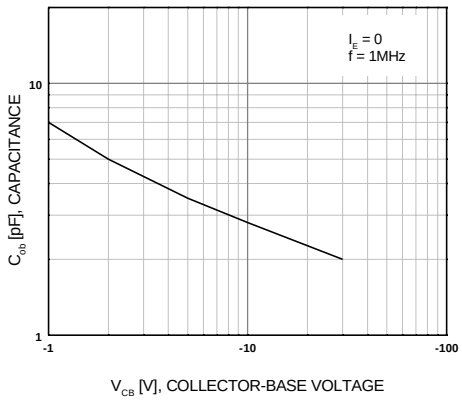


Figure 5. Collector Output Capacitance

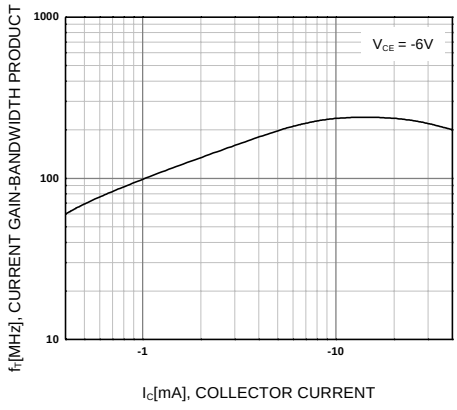
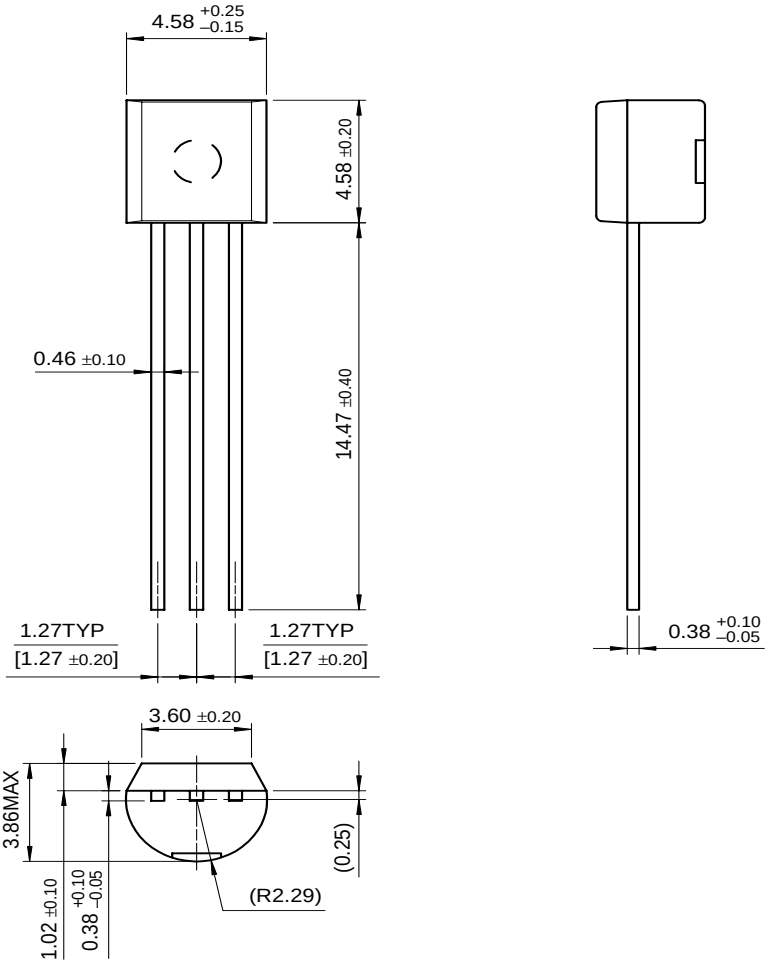


Figure 6. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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