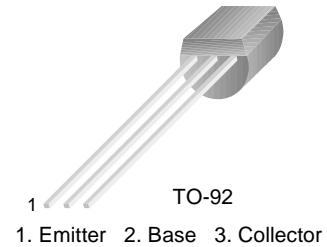


KSA733

Low Frequency Amplifier

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



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$
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	$I_C = -100\mu\text{A}, I_E = 0$	-60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	-50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}, I_C = 0$	-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	$V_{CE} = -6V, I_C = -1\text{mA}$	40	700		
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = -100\text{mA}, I_B = -10\text{mA}$		-0.18	-0.3	V
$V_{BE(\text{on})}$	Base-Emitter On Voltage	$V_{CE} = -6V, I_C = -1\text{mA}$	-0.50	-0.62	-0.80	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -6V, I_C = -10\text{mA}$	50	180		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1\text{MHz}$		2.8		pF
NF	Noise Figure	$V_{CE} = -6V, I_C = -0.3\text{mA}$ $f = 1\text{MHz}, R_s = 10\text{k}\Omega$		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

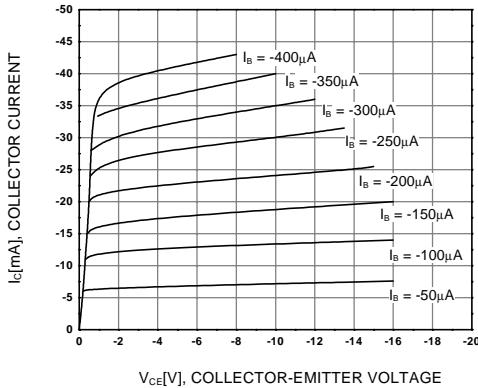


Figure 1. Static Characteristic

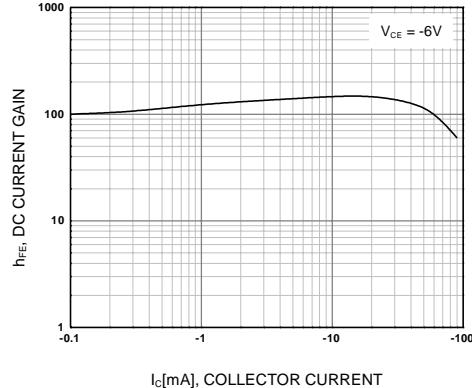


Figure 2. DC current Gain

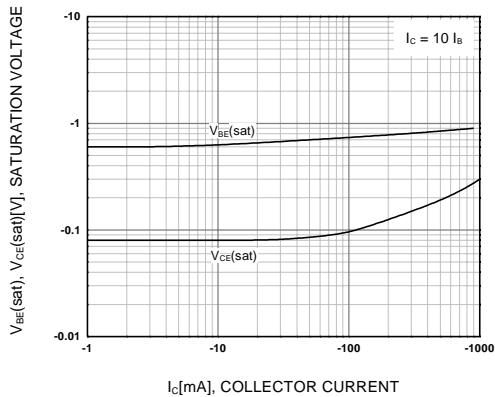


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

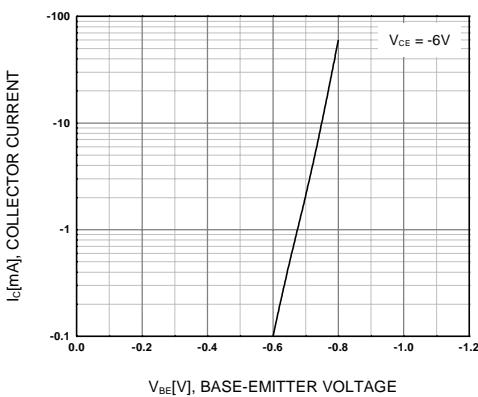


Figure 4. Base-Emitter On Voltage

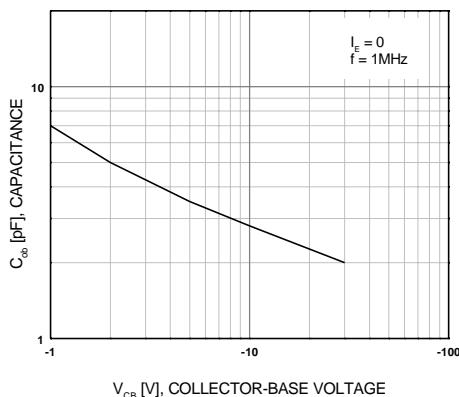


Figure 5. Collector Output Capacitance

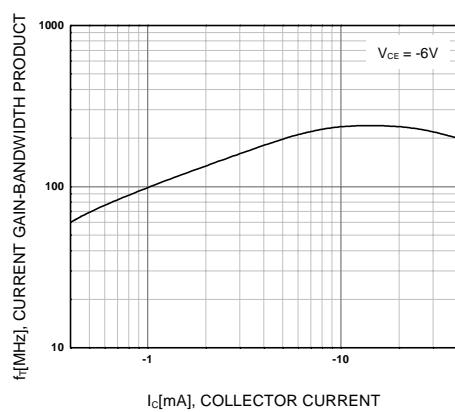
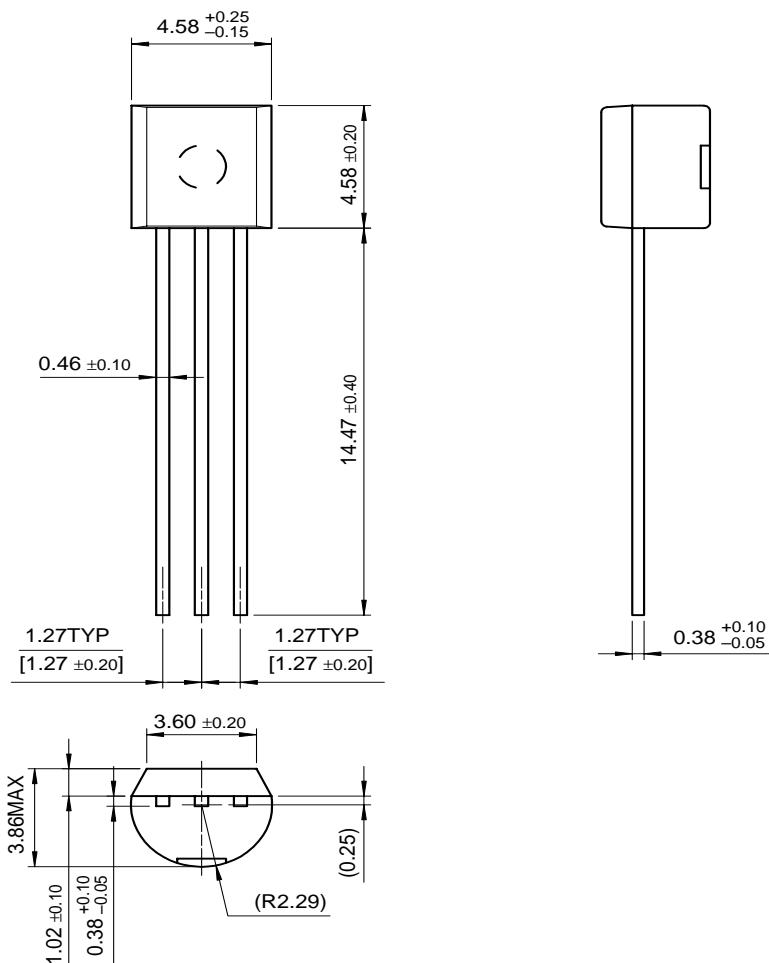


Figure 6. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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