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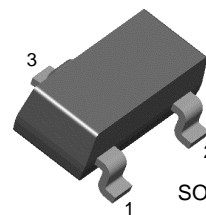
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# KSA812

## Low Frequency Amplifier

- Collector-Base Voltage :  $V_{CBO} = -60V$
- Complement to KSC1623



SOT-23  
1. Base 2. Emitter 3. Collector

## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a = 25^\circ C$ 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	-100	mA
$P_C$	Collector Power Dissipation	150	mW
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ C$

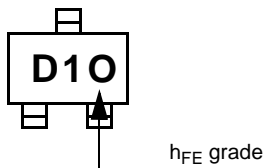
### Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -60V, I_E = 0$			-0.1	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
$h_{FE}$	DC Current Gain	$V_{CE} = -6V, I_C = -1mA$	90	200	600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -6V, I_C = -1mA$	-0.55	-0.62	-0.65	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -6V, I_C = -10mA$		180		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5		pF

## $h_{FE}$ Classification

Classification	O	Y	G	L
$h_{FE}$	90 ~ 180	135 ~ 270	200 ~ 400	300 ~ 600

Marking



# Typical Characteristics

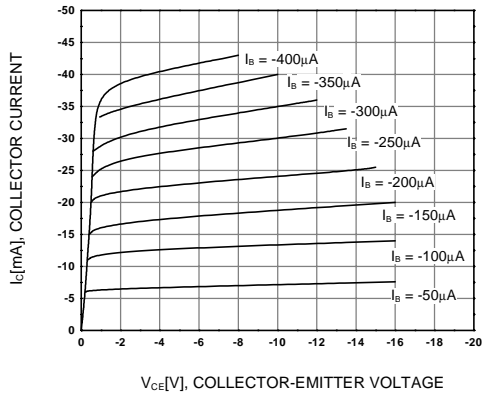


Figure 1. Static Characteristic

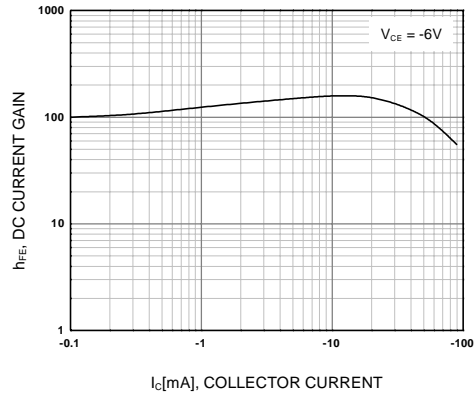


Figure 2. DC current Gain

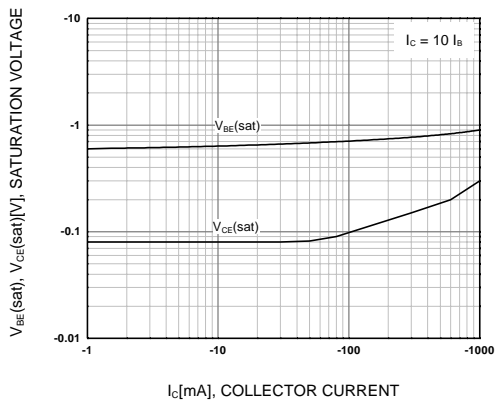


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

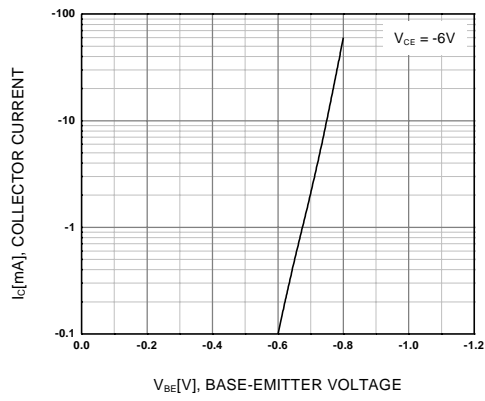


Figure 4. Base-Emitter On Voltage

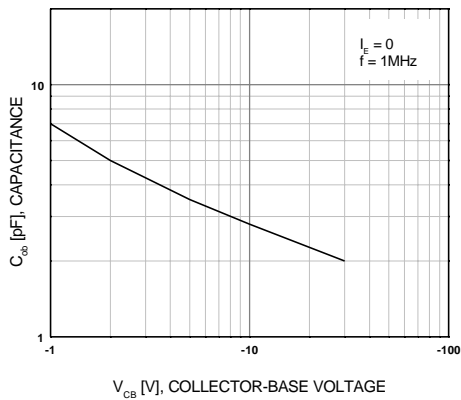


Figure 5. Collector Output Capacitance

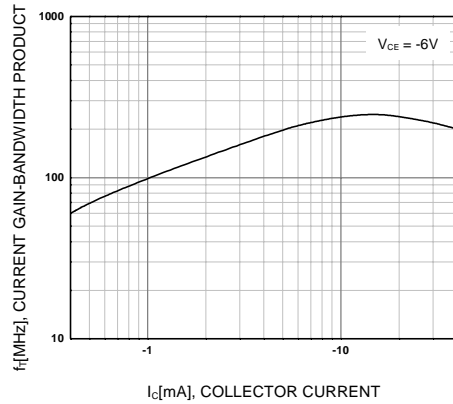
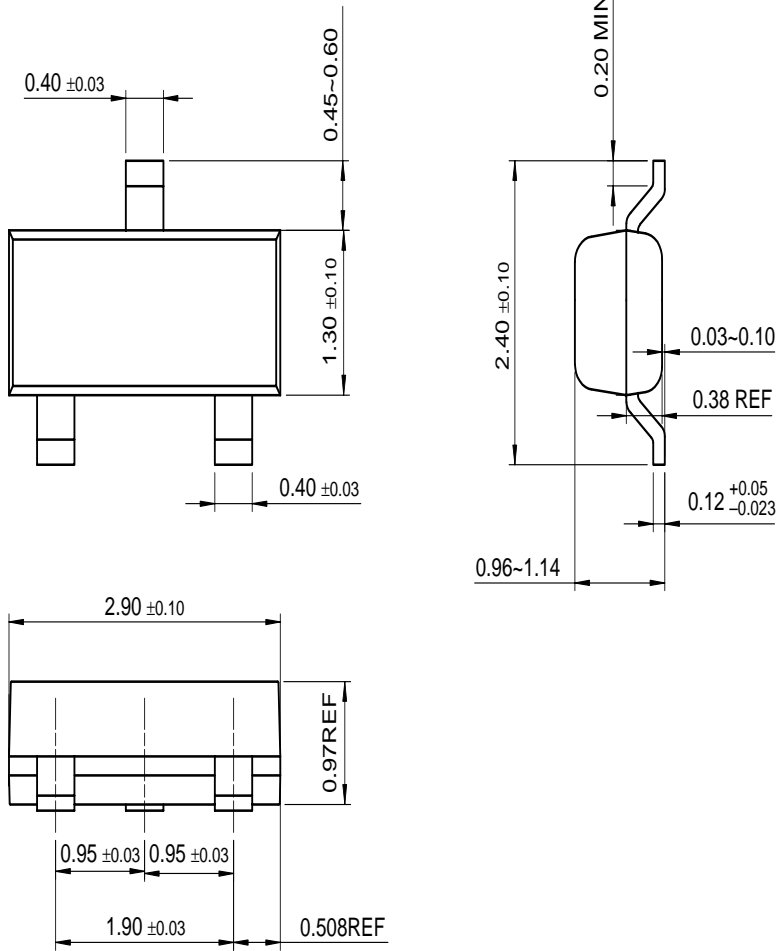


Figure 6. Current Gain Bandwidth Product

# Package Dimensions

## SOT-23



Dimensions in Millimeters

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