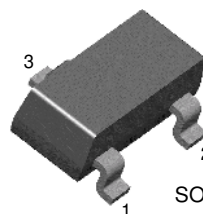


# KSA812

## 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	$^\circ C$

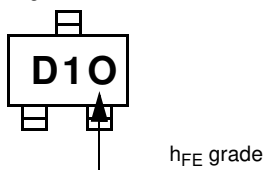
### Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

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

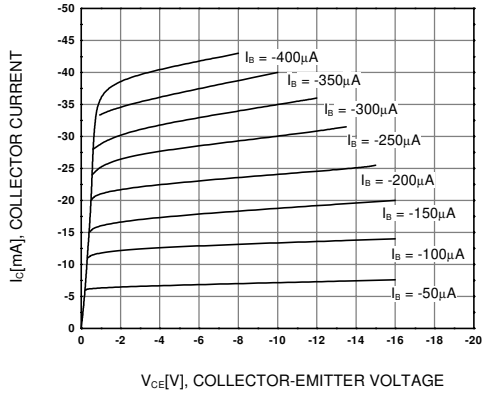
## $h_{FE}$ Classification

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

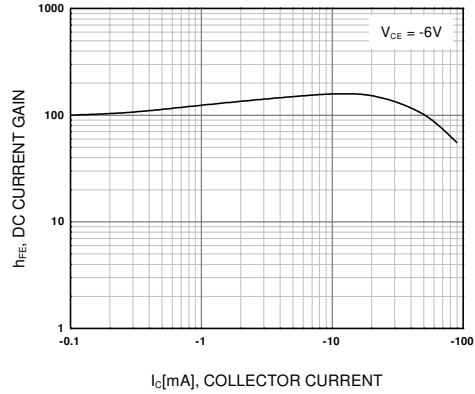
Marking



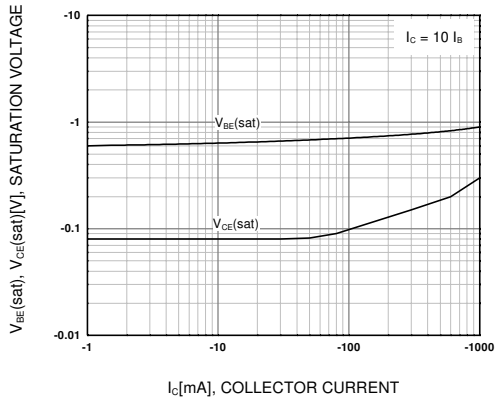
# Typical Characteristics



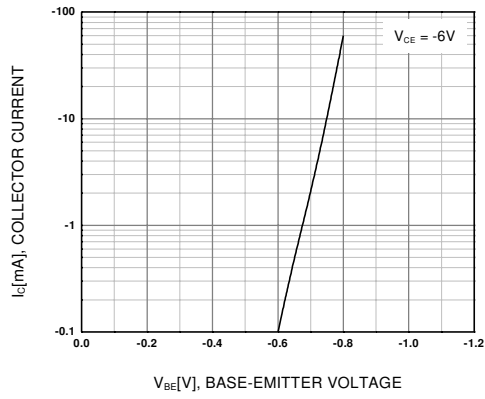
**Figure 1. Static Characteristic**



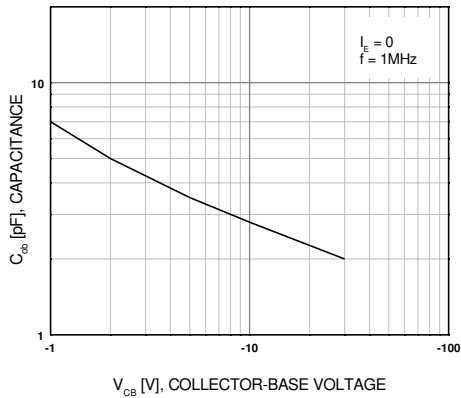
**Figure 2. DC current Gain**



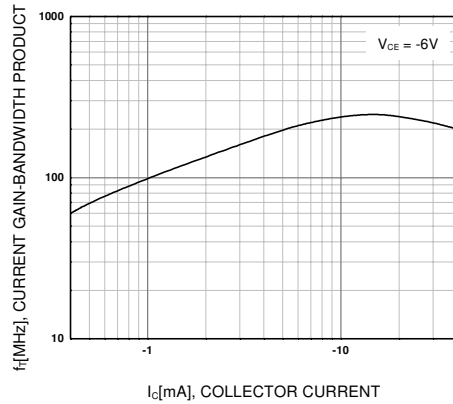
**Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Figure 4. Base-Emitter On Voltage**



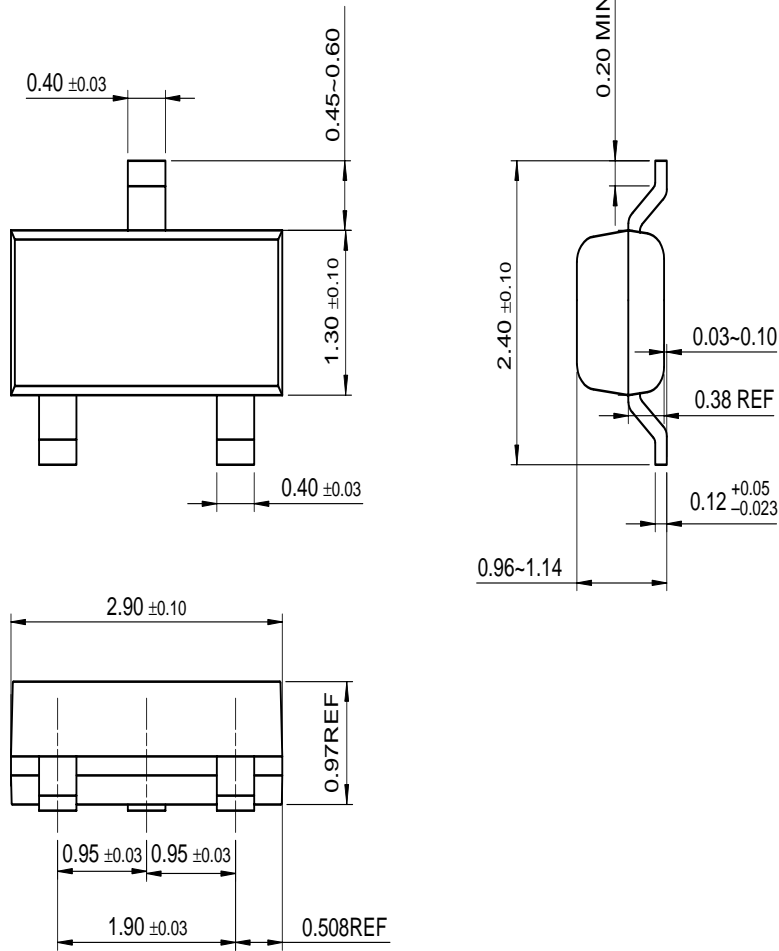
**Figure 5. Collector Output Capacitance**



**Figure 6. Current Gain Bandwidth Product**

# Package Dimensions

## SOT-23



Dimensions in Millimeters

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[parametric search](#)

[Cross-reference](#)

[search](#)

KSA812

PNP Epitaxial Silicon Transistor

[Contents](#)

[Features](#) | [Product status/pricing/packaging](#)

Features

### Low Frequency Amplifier

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

[back to top](#)

### Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSA812GMTF	Full Production	\$0.045	<a href="#">SOT-23</a>	3	TAPE REEL
KSA812OMTF	Full Production	\$0.045	<a href="#">SOT-23</a>	3	TAPE REEL
KSA812GAMTF	Full Production	\$0.045	<a href="#">SOT-23</a>	3	TAPE REEL
KSA812YMTF	Full Production	\$0.045	<a href="#">SOT-23</a>	3	TAPE REEL
KSA812LMTF	Full Production	\$0.045	<a href="#">SOT-23</a>	3	TAPE REEL

\* 1,000 piece Budgetary Pricing

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