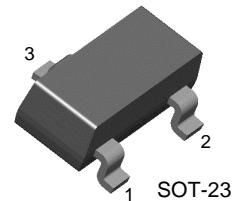


KSC1623

Low Frequency Amplifier & High Frequency OSC.

- Complement to KSA812



1. Base 2. Emitter 3. Collector

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	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	200	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

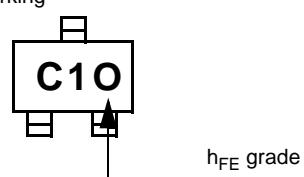
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	$V_{CB}=60\text{V}$, $I_E=0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=5\text{V}$, $I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$	90	200	600	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=100\text{mA}$, $I_B=10\text{mA}$		0.15	0.3	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C=100\text{mA}$, $I_B=10\text{mA}$		0.86	1.0	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$	0.55	0.62	0.65	V
f_T	Current Gain Bandwidth Product	$V_{CE}=6\text{V}$, $I_C=10\text{mA}$		250		MHz
C_{ob}	Output Capacitance	$V_{CB}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$		3		pF

h_{FE} Classification

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

Marking



Typical Characteristics

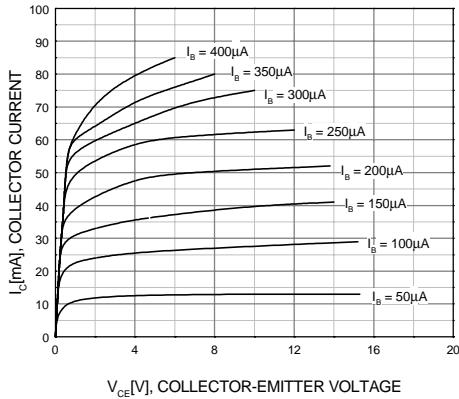


Figure 1. Static Characteristics

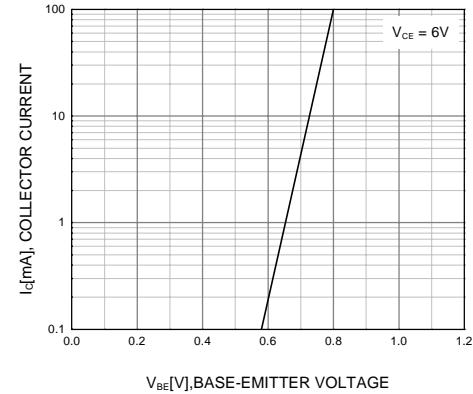


Figure 2. Transfer Characteristic

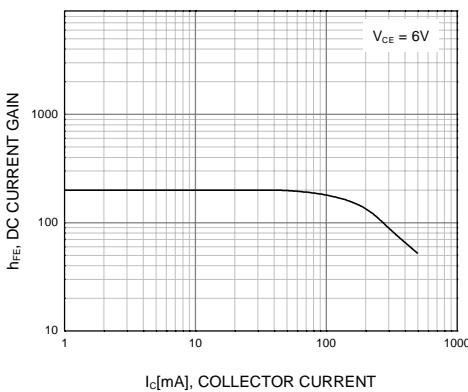


Figure 3. DC current Gain

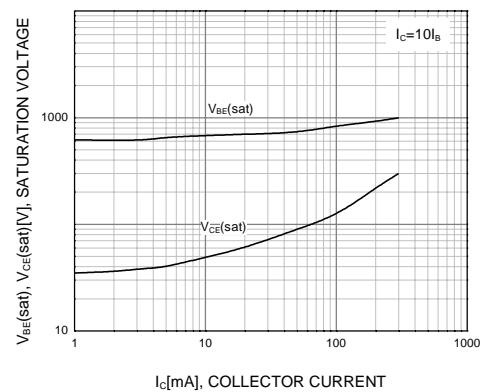


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

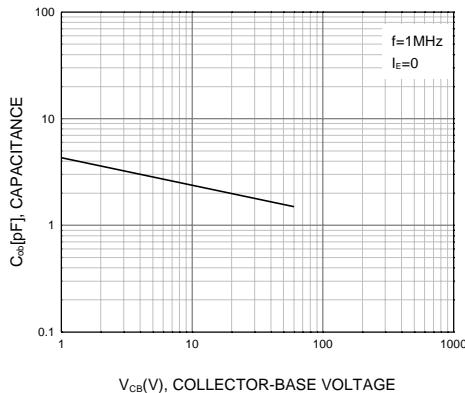


Figure 5. Output Capacitance

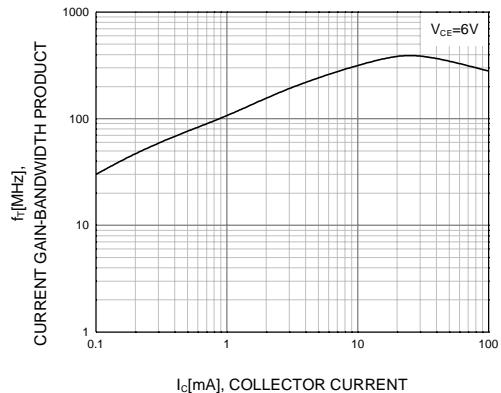
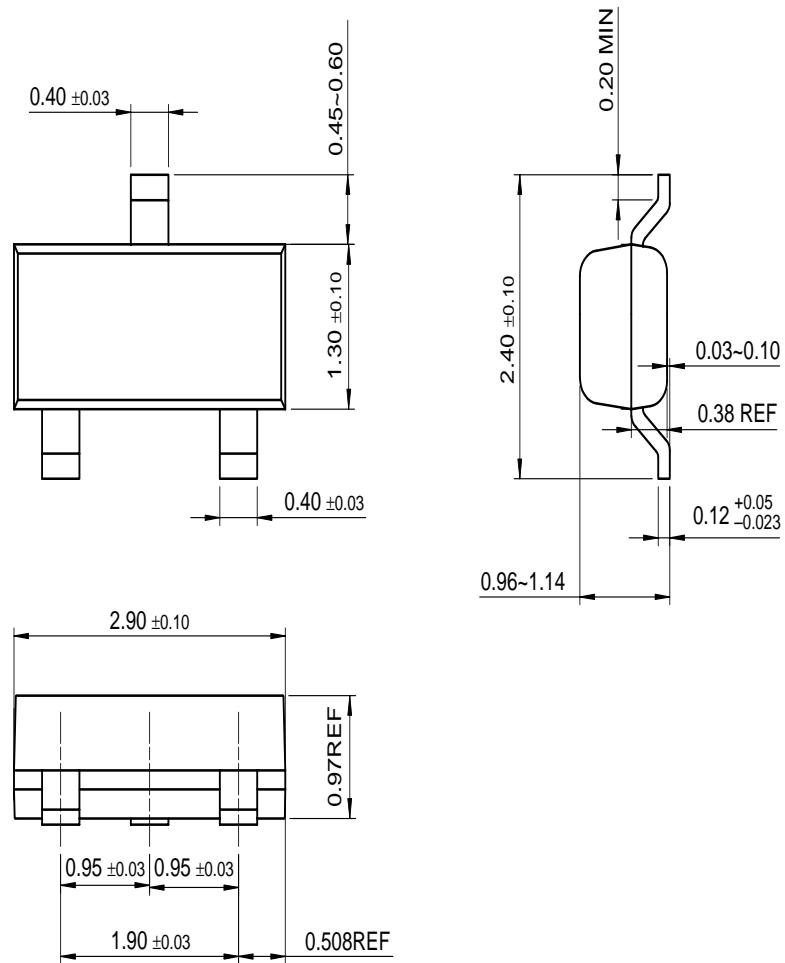


Figure 6. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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