

KSA1015

LOW FREQUENCY AMPLIFIER

- Collector-Base Voltage : $V_{CBO} = -50V$
- Complement to KSC1815



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-150	mA
I_B	Base Current	-50	mA
P_C	Collector Power Dissipation	400	mW
T_J	Junction Temperature	125	$^\circ C$
T_{ST9}	Storage Temperature	-65 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10mA, I_B = 0$	-50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -50V, I_E = 0$			-0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_C = 0$			-0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -6V, I_C = -2mA$ $V_{CE} = -6V, I_C = -150mA$	70 25		400	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100mA, I_B = -10mA$		-0.1	-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -100mA, I_B = -10mA$			-1.1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -10V, I_C = -1mA$	80			MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4	7	pF
NF	Noise Figure	$V_{CE} = -6V, I_C = -0.1mA$ $f = 100Hz, R_G = 10k\Omega$		0.5	6	dB

h_{FE} Classification

Classification	O	Y	GR
h_{FE1}	70 ~ 140	120 ~ 240	200 ~ 400

Typical Characteristics

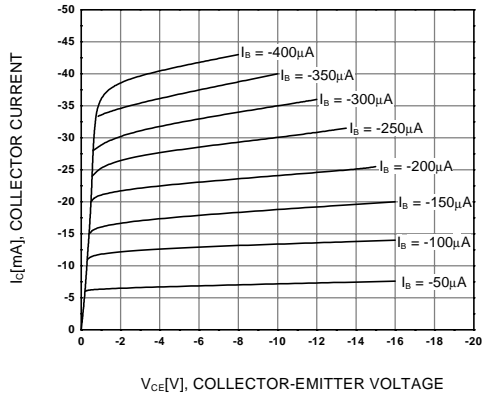


Figure 1. Static Characteristic

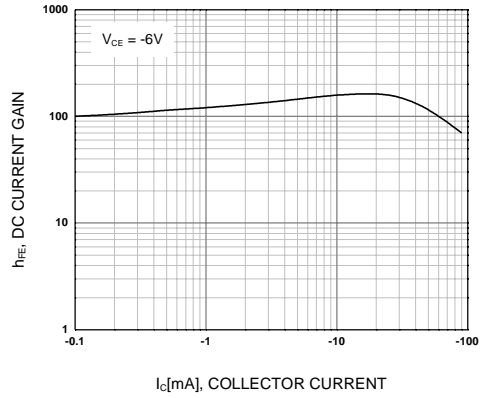
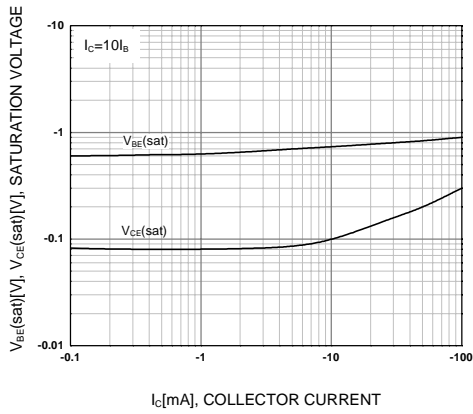


Figure 2. DC current Gain



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

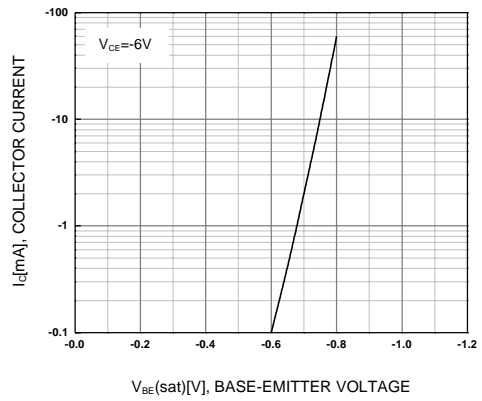


Figure 4. Base-Emitter On Voltage

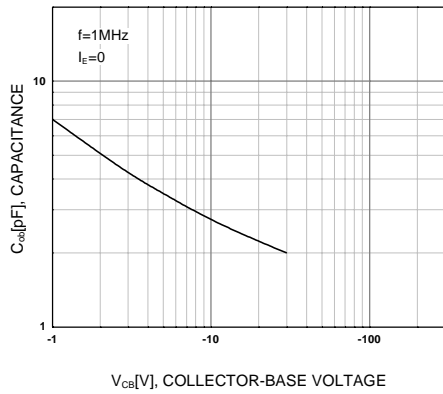


Figure 5. Collector Output Capacitance

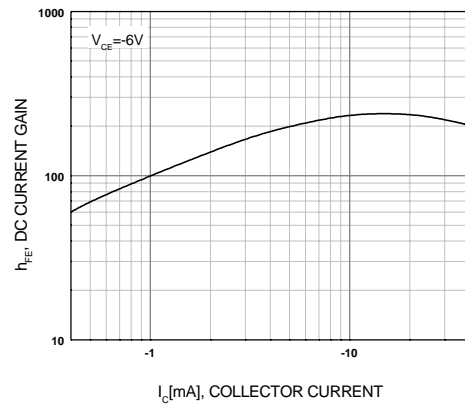


Figure 6. Current Gain Bandwidth Product

Package Dimensions

KSA1015

TO-92



Dimensions in Millimeters

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