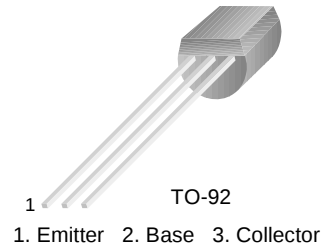


KSA539

KSA539

Low Frequency Amplifier

- Complement to KSC815
- Collector-Base Voltage: $V_{CBO} = -60V$
- Collector Power Dissipation: $P_C = 400mW$
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



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	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-200	mA
P_C	Collector Power Dissipation	400	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
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10mA, I_B = 0$	-45			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -45V, I_E = 0$			-100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -3V, I_C = 0$			-100	nA
h_{FE}	DC Current Gain	$V_{CE} = -1V, I_C = -50mA$	40		240	
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -1V, I_C = -10mA$	-0.60	-0.65	-0.90	V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -150mA, I_B = -15mA$		-0.25	-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -150mA, I_B = -15mA$		-0.9	-1.2	V

h_{FE} Classification

Classification	R	O	Y
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240

Typical Characteristics

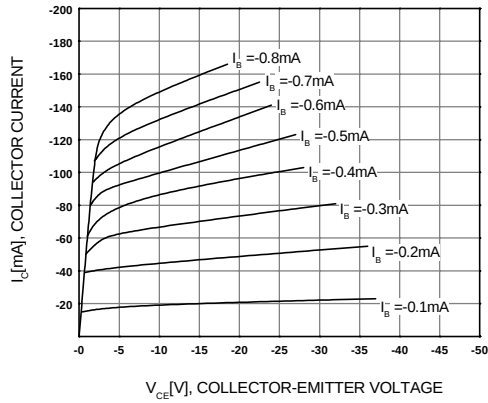


Figure 1. Static Characteristic

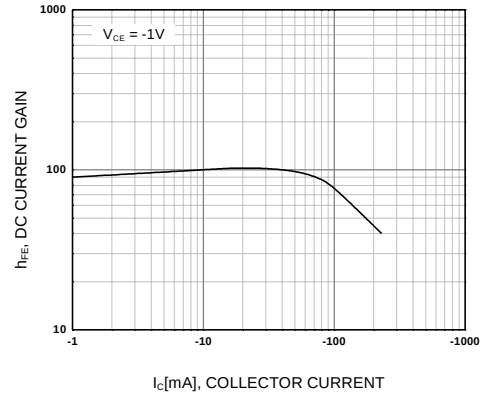


Figure 2. DC current Gain

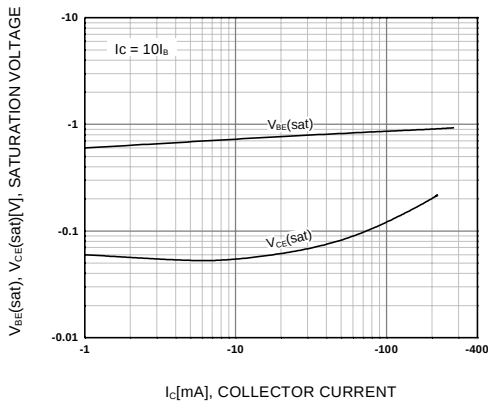


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

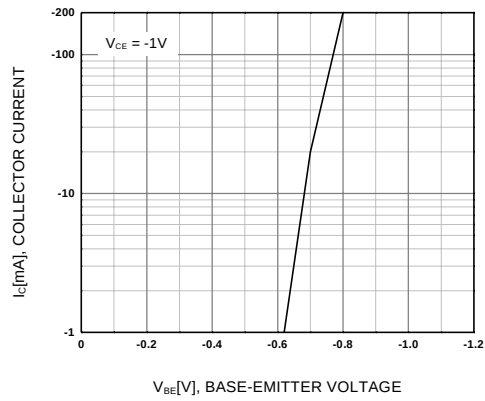


Figure 4. Base-Emitter On Voltage

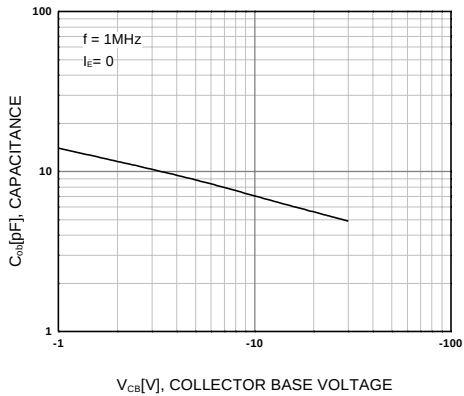


Figure 5. Collector Output Capacitance

Package Dimensions

TO-92



Dimensions in Millimeters

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