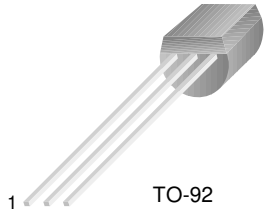
FAIRCHILD
SEMICONDUCTOR®

KSA642

Low Frequency Power Amplifier

- Complement to KSD227
- Collector Power Dissipation : P_C = 400mW
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



TO-92

1. Emitter 2. Base 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-300	mA
I_{CP}	* Collector Current (Pulse)	-500	mA
P_C	Collector Power Dissipation	400	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

* PW≤10ms, Duty cycle≤50%

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C= -100μA, I_E=0	-30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C= -10mA. I_B=0	-25			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -10μA. I_C=0	- 5			V
I_{CBO}	Collector Cut-off Current	V_{CB}= -25V, 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	70		400	
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C= -300mA, I_B= -30mA		-0.35	-0.6	V

* Pulse Test: PW≤350μs, Duty cycle≤2%

h_{FE} Classification

Classification	O	Y	G
h_{FE}	70 ~ 140	120 ~ 240	200 ~ 400

Typical Characteristics

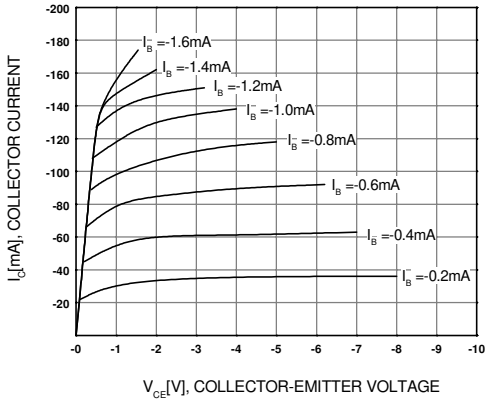


Figure 1. Static Characteristic

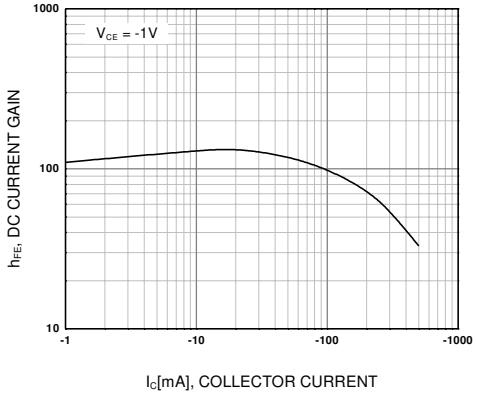


Figure 2. DC current Gain

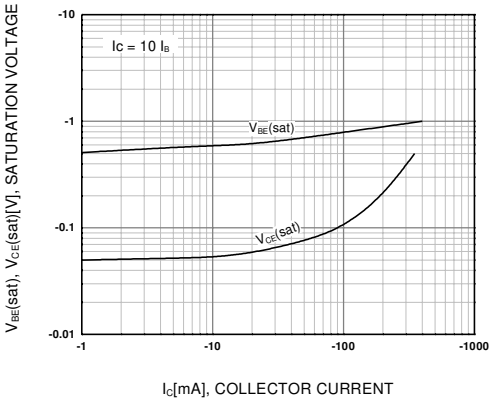


Figure 3. Base-Emitter Saturation Voltag Collector-Emitter Saturation Voltage

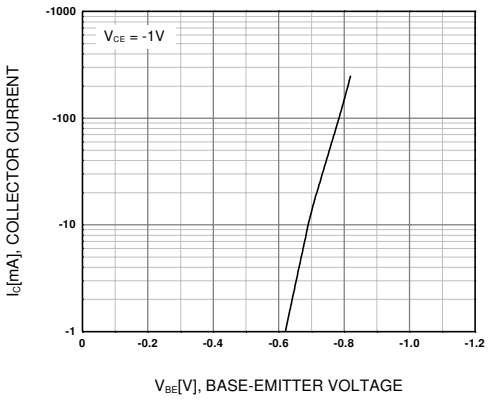


Figure 4. Base-Emitter On Voltage

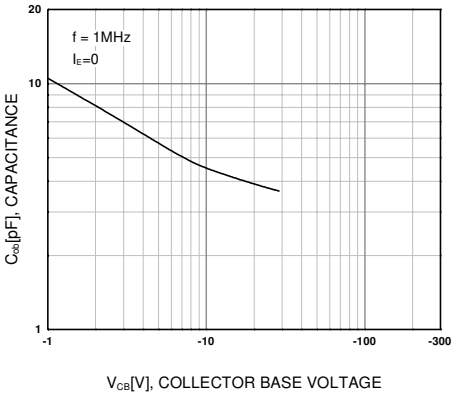
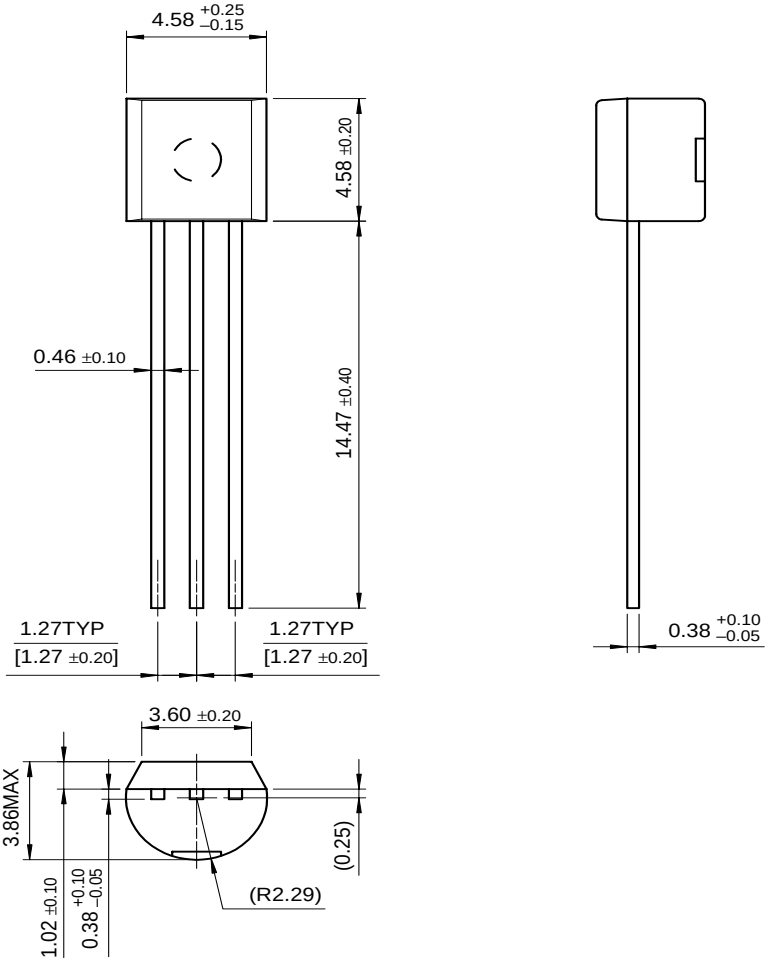


Figure 5. Collector Output Capacitance

Package Demensions

TO-92



Dimensions in Millimeters

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