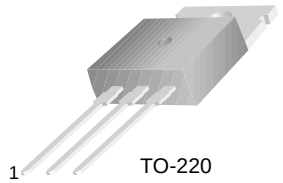
FAIRCHILD SEMICONDUCTOR™

KSB707/708

Low Frequency Power Amplifier

- Low Speed Switching
- Industrial Use
- Complement to KSD568/569



TO-220

1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 80	V
V_{CEO}	Collector-Emitter Voltage : B707 : B708	- 60 - 80	V V
V_{EBO}	Emitter-Base Voltage	- 7.0	V
I_C	Collector Current (DC)	- 7.0	A
I_{CP}	*Collector Current (Pulse)	- 15	A
I_B	Base Current (DC)	- 3.5	A
P_C	Collector Dissipation (T_C=25°C)	40	W
P_C	Collector Dissipation (T_a=25°C)	1.5	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

* PW≤300μs, Duty Cycle≤10%

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	V_{CB} = - 60V, I_E = 0		- 10	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 5V, I_C = 0		- 10	μA
h_{FE1} h_{FE2}	* DC Current Gain	V_{CE} = - 1V, I_C = - 3A V_{CE} = - 1V, I_C = - 5A	40 20	200	
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = - 5A, I_B = - 0.5A		- 0.5	V
V_{BE}(sat)	* Base-Emitter Saturation Voltage	I_C = - 5A, I_B = - 0.5A		- 1.5	V

* Pulse Test: PW≤350μs, Duty Cycle≤2%

h_{FE} Cassification

Classification	R	O	Y
h_{FE1}	40 ~ 80	60 ~ 120	100 ~ 200

Typical Characteristics

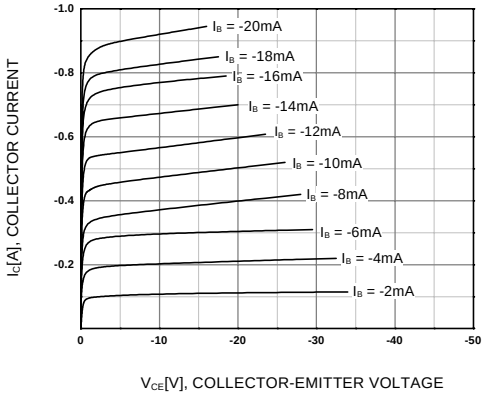


Figure 1. Static Characteristic

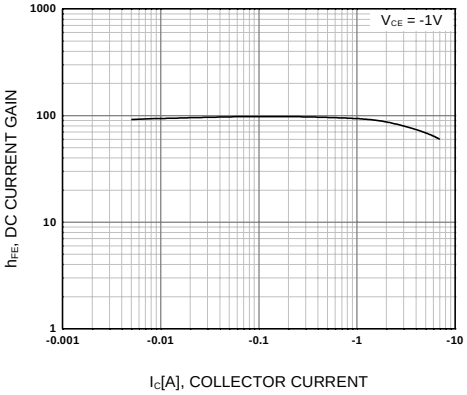


Figure 2. DC current Gain

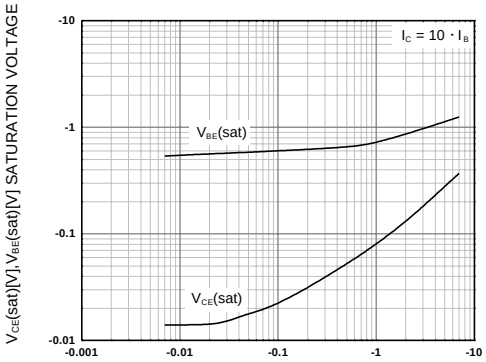


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

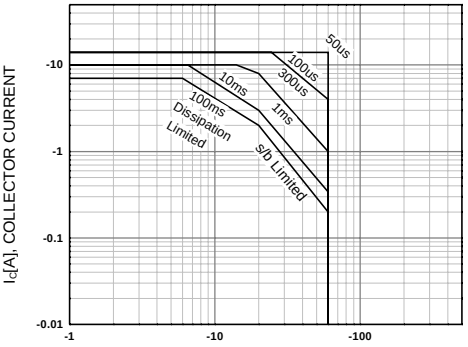


Figure 4. Forward Bias Safe Operating Area

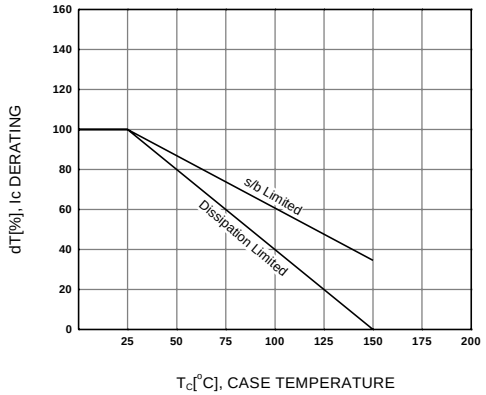


Figure 5. Derating Curve of Safe Operating Areas

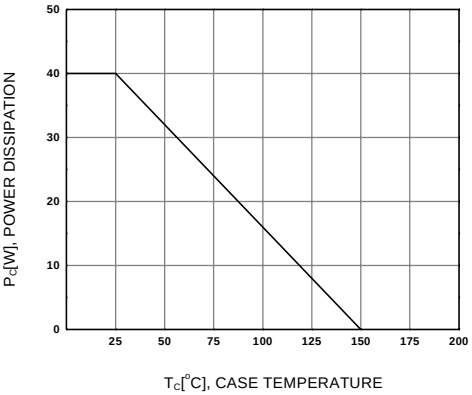
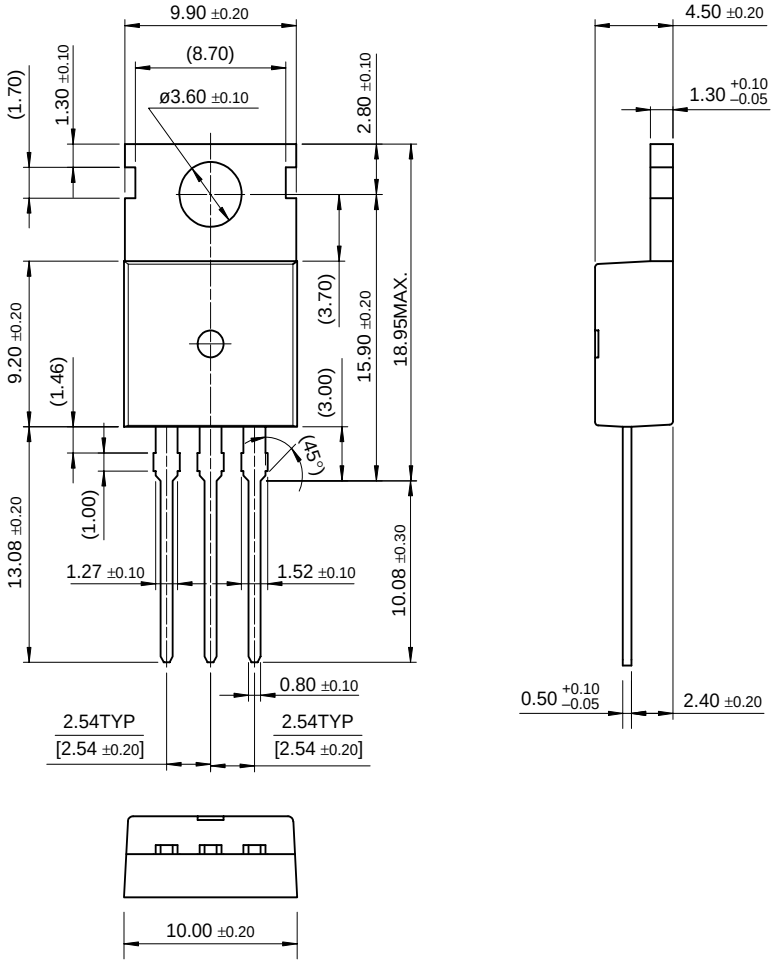


Figure 6. Power Derating

Package Demensions

TO-220



Dimensions in Millimeters

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