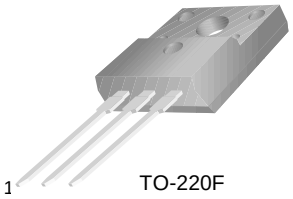
FAIRCHILD SEMICONDUCTOR™

KSB1015

Low Frequency Power Amplifier

- Low Collector Emitter Saturation Voltage
- Complement to KSD1406



1 TO-220F

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	- 60	V
V_{CEO}	Collector-Emitter Voltage	- 60	V
V_{EBO}	Emitter-Base Voltage	- 7	V
I_C	Collector Current(DC)	- 3	A
I_B	Base Current	- 0.5	A
P_C	Collector Dissipation (T_C=25°C)	25	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = - 50mA, I_B = 0	- 60			V
I_{CBO}	Collector Cut-off Current	V_{CB} = - 60V, I_E = 0			- 100	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 7V, I_C = 0			- 100	µA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE} = - 5V, I_C = - 0.5A V_{CE} = - 5V, I_C = - 3A	60 20		200	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = - 3A, I_B = - 0.3A		- 0.5	- 1	V
V_{BE}(on)	Base-Emitter ON Voltage	V_{CE} = - 5V, I_C = - 0.5A		- 0.7	- 1	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 5V, I_C = - 0.5A		9		MHz
C_{ob}	Output Capacitance	V_{CB} = - 10V, f = 1MHz		150		pF
t_{ON}	Turn ON Time	V_{CC} = - 30V, I_C = - 1A I_{B1} = -I_{B2} = -0.2A R_L = 30Ω		0.4		µs
t_{STG}	Storage Time			1.7		µs
t_F	Fall Time			0.5		µs

h_{FE} Classification

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

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Typical Characteristics

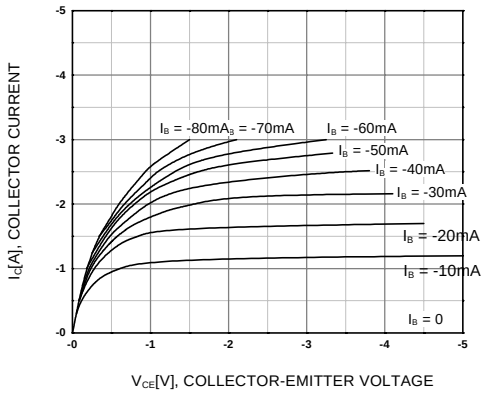


Figure 1. Static Characteristic

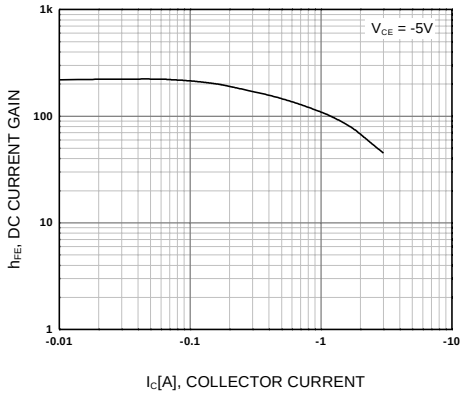


Figure 2. DC current Gain

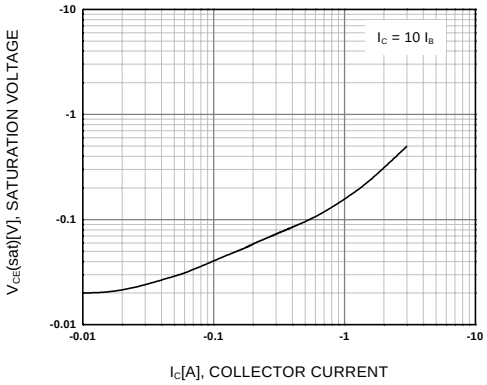


Figure 3. Collector-Emitter Saturation Voltage

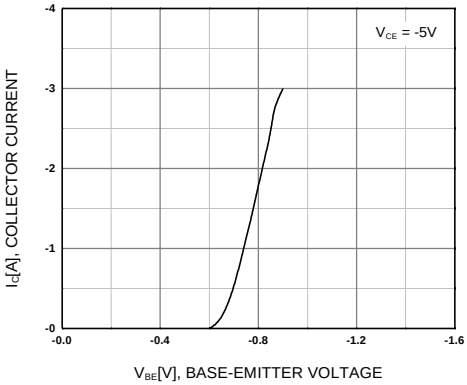


Figure 4. Base-Emitter On Voltage

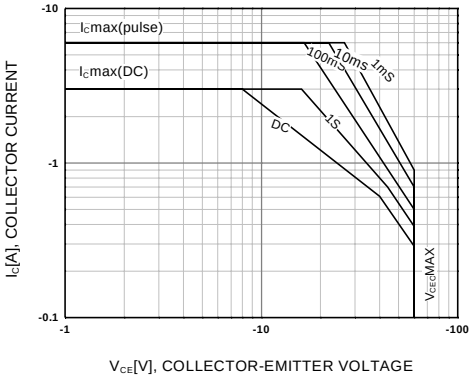


Figure 5. Safe Operating Area

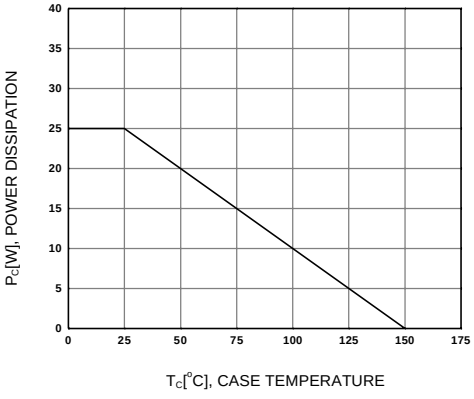
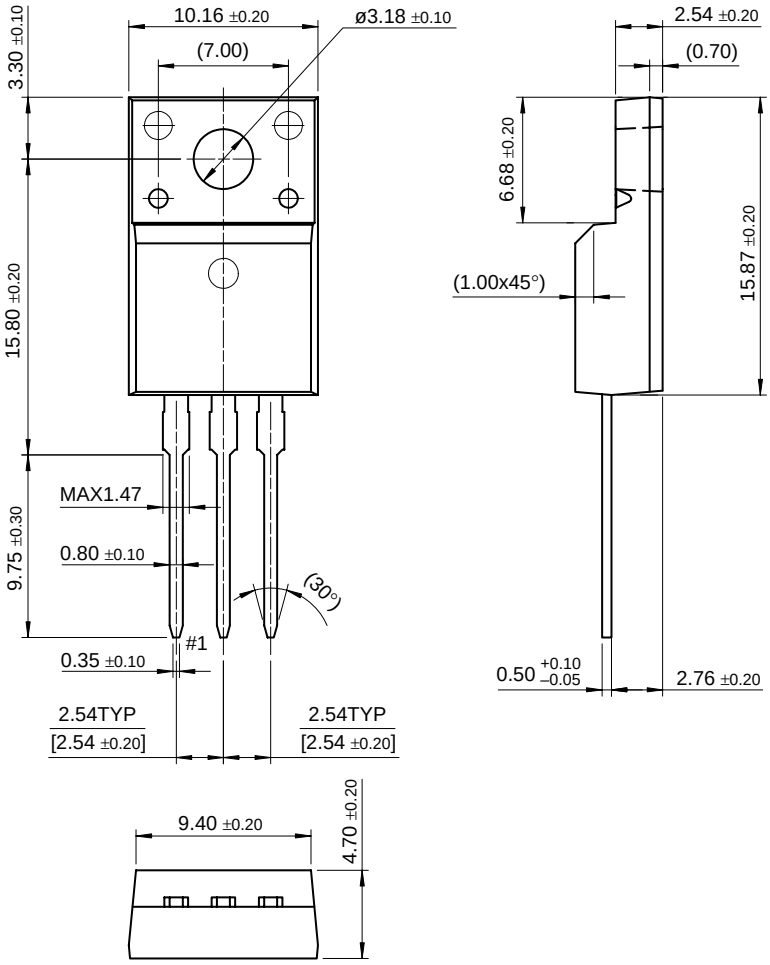


Figure 6. Power Derating

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Package Demensions

TO-220F



Dimensions in Millimeters

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MICROWIRE™
POP™
PowerTrench®
QFET™
QS™
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SuperSOT™-3
SuperSOT™-6
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