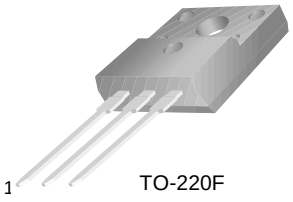
FAIRCHILD
SEMICONDUCTOR TM

KSD2012

Low Frequency Power Amplifier

- Complement to KSB1366



TO-220F

1.Base 2.Collector 3.Emitter

NPN 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	3	A
I_B	Base Current	0.3	A
P_C	Collector Power 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			10	μA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE} = 5V, I_C = 0.5A V_{CE} = 5V, I_C = 3A	100 20		320	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 2A, I_B = 0.2A		0.4	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		3		MHz

h_{FE} Classification

Classification	Y	G
h_{FE1}	100 ~ 200	150 ~ 320

Typical Characteristics

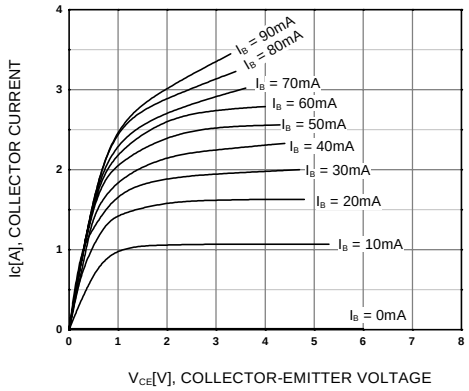


Figure 1. Static Characteristic

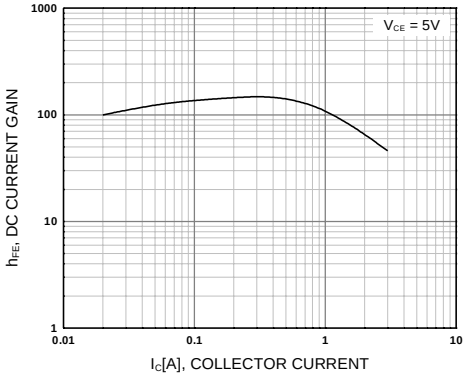


Figure 2. DC current Gain

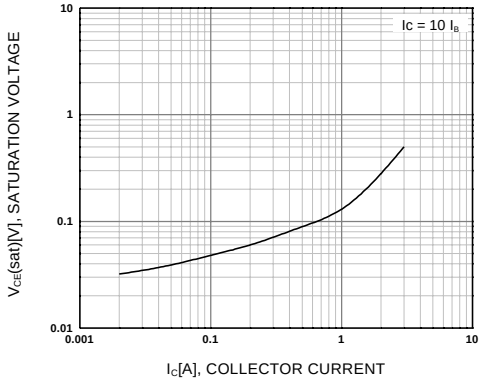


Figure 3. Collector-Emitter Saturation Voltage

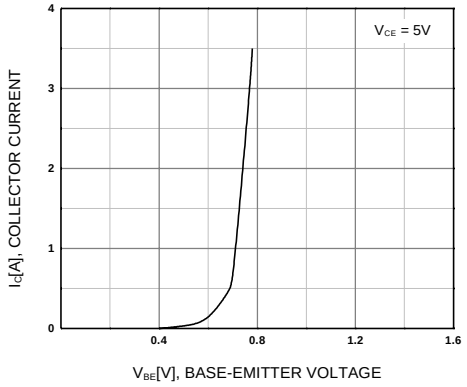


Figure 4. Base-Emitter On Voltage

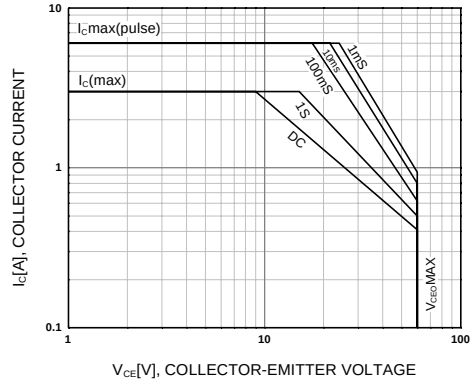


Figure 5. Safe Operating Area

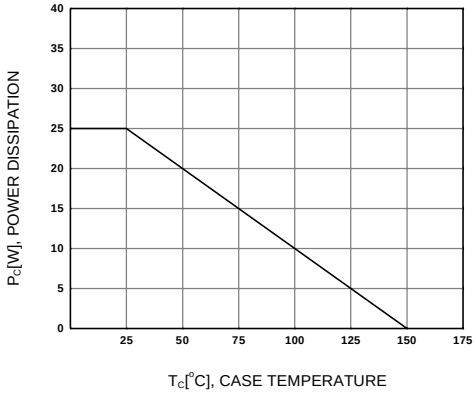
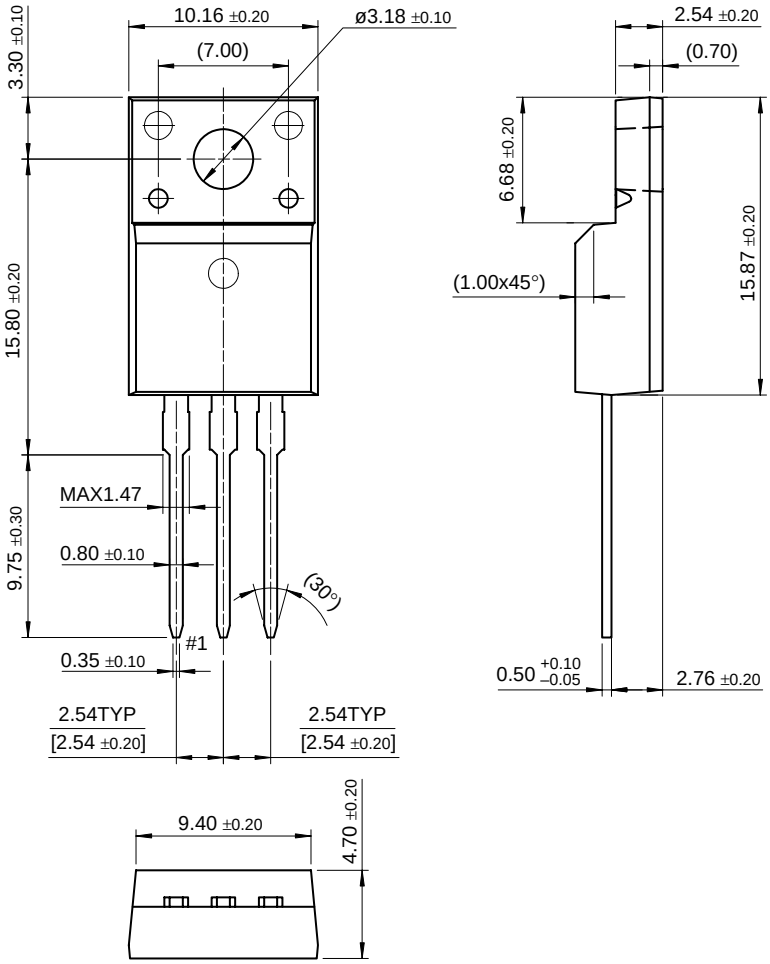


Figure 6. Power Derating

Package Demensions

TO-220F



Dimensions in Millimeters

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