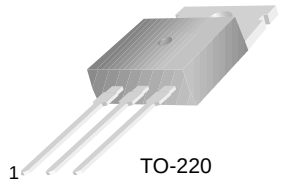
FAIRCHILD SEMICONDUCTOR™

KSB596

Power Amplifier Applications

- Complement to KSD526



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	- 80	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current(DC)	- 4	A
I_B	Base Current	- 0.4	A
P_C	Collector Dissipation (T_C=25°C)	30	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	- 80			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = - 10mA, I_C = 0	- 5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = - 80V, I_E = 0			- 70	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 5V, 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	40 15		240	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = - 3A, I_B = - 0.3A		- 1	- 1.7	V
V_{BE} (on)	Base-Emitter ON Voltage	V_{CE} = - 5V, I_C = - 3A		- 1	- 1.5	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 5V, I_C = - 0.5A	3			MHz
C_{ob}	Output Capacitance	V_{CB} = - 10V, I_E = 0 f = 1MHz		130		pF

h_{FE} Classification

Classification	R	O	Y
h_{FE1}	40 ~ 80	70 ~ 140	120 ~ 240

Typical Characteristics

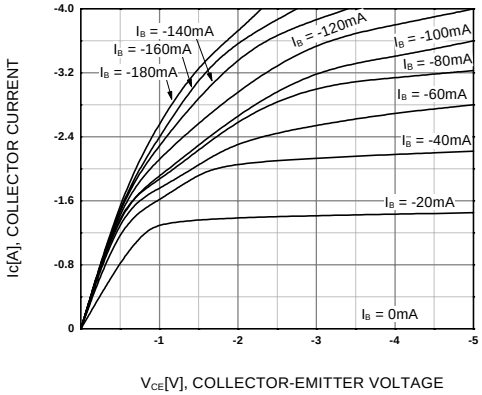


Figure 1. Static Characteristic

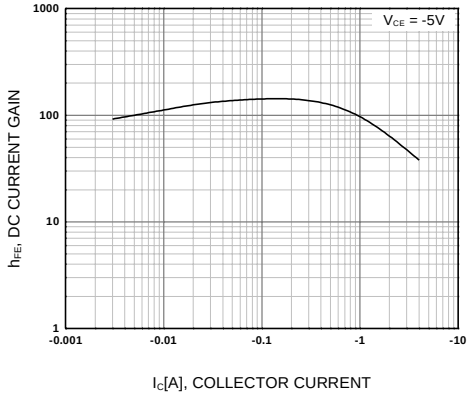


Figure 2. DC current Gain

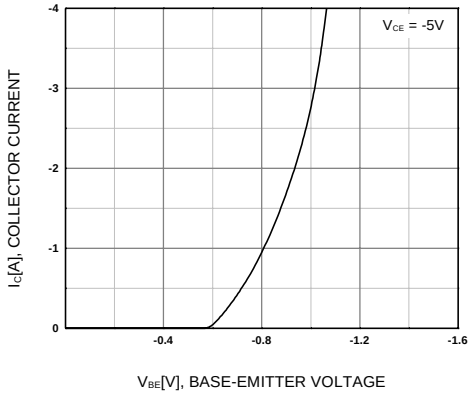


Figure 3. Base-Emitter Saturation Voltage

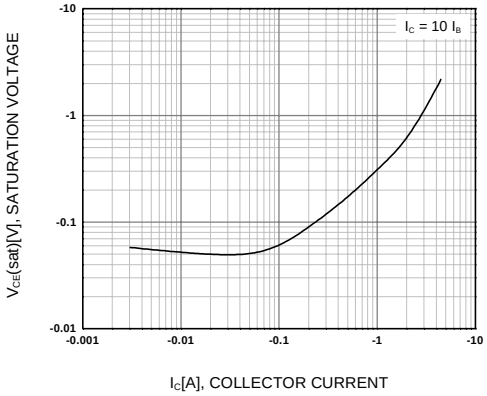


Figure 4. Collector-Emitter Saturation Voltage

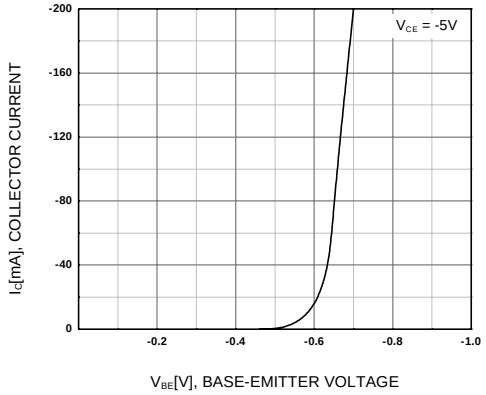


Figure 5. Base-Emitter On Voltage

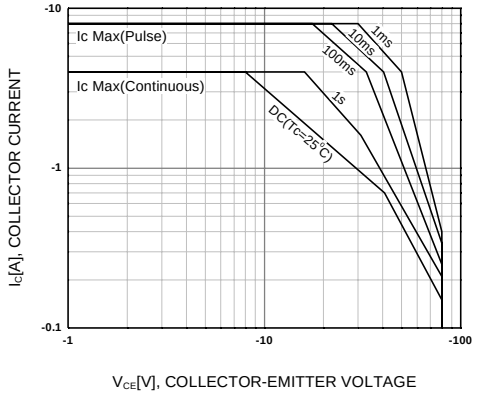


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

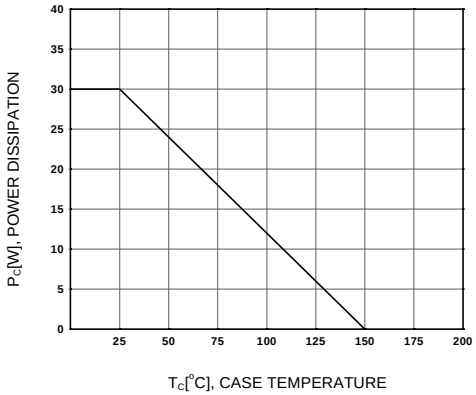
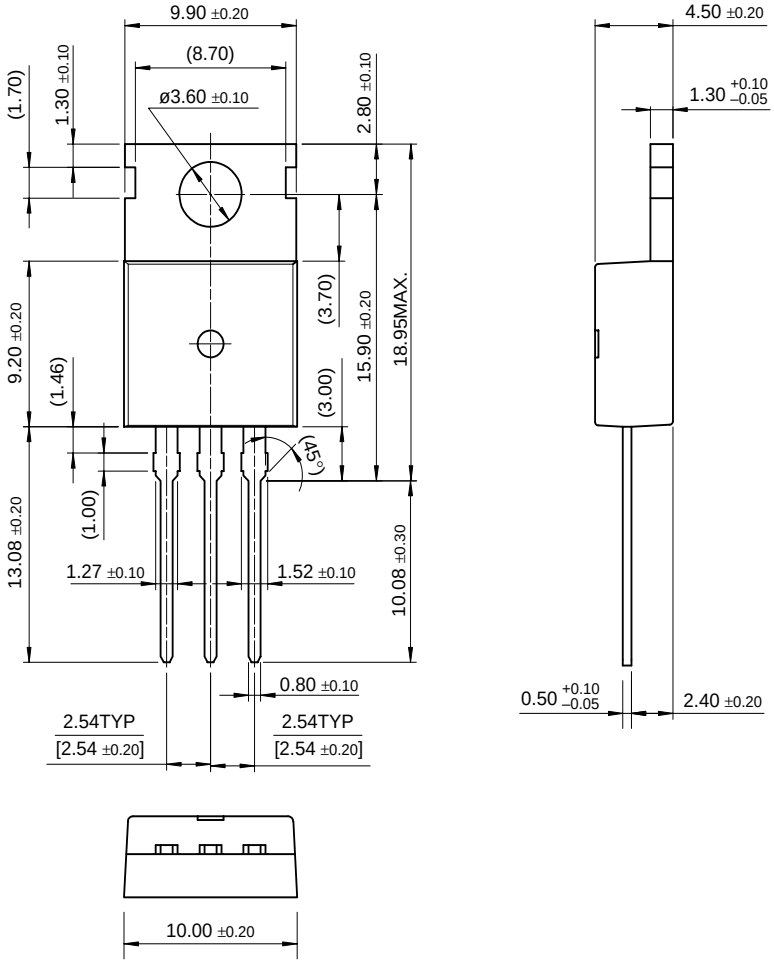


Figure 1. Power Derating

Package Demensions

TO-220



Dimensions in Millimeters

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