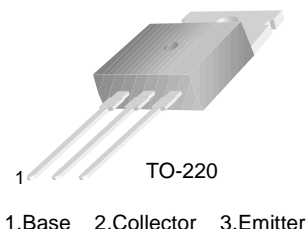


KSB834

KSB834

Low Frequency Power Amplifier

- Complement to KSD880



PNP Silicon Epitaxial Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ 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	- 0.5	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	30	W
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

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

Typical Characteristics

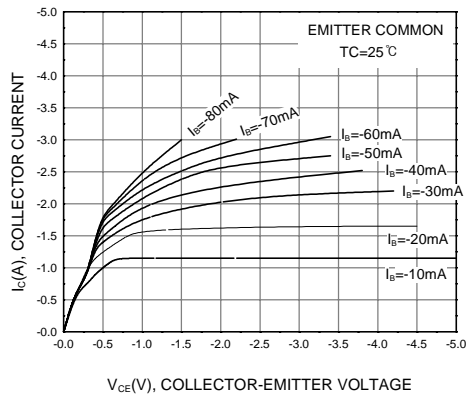


Figure 1. Static Characteristic

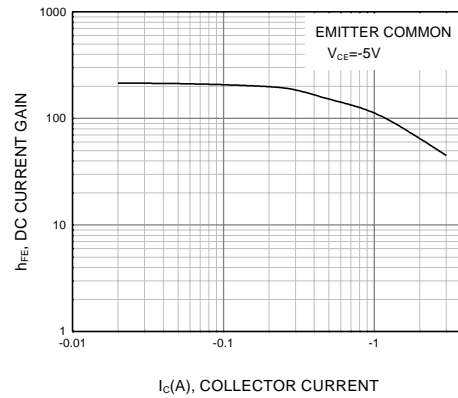


Figure 2. DC current Gain

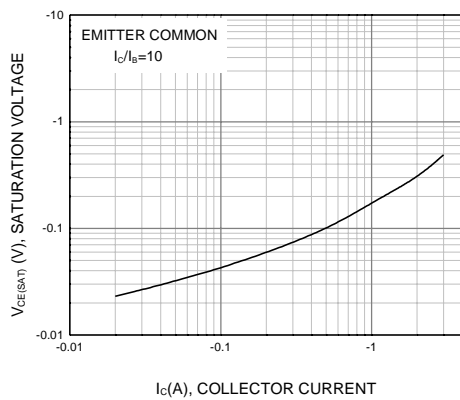


Figure 3. Collector-Emitter Saturation Voltage

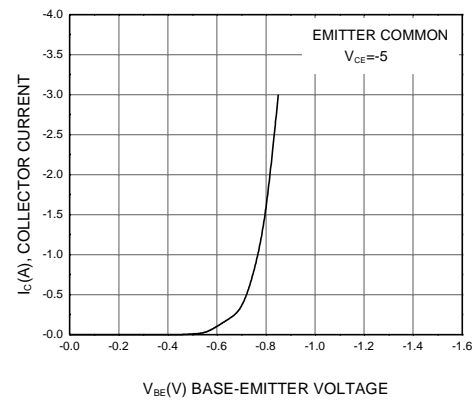


Figure 4. Base-Emitter On Voltage

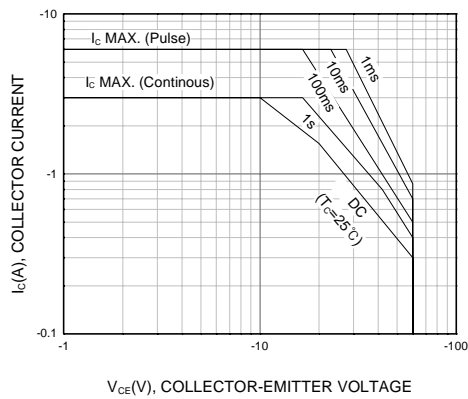


Figure 5. Safe Operating Area

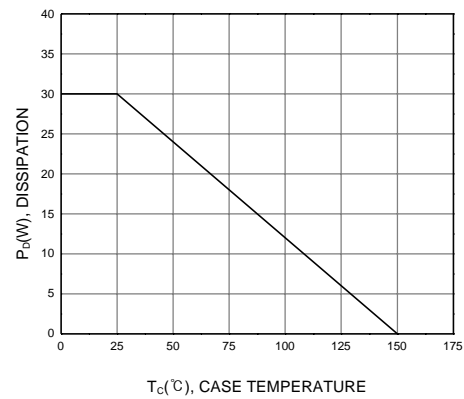
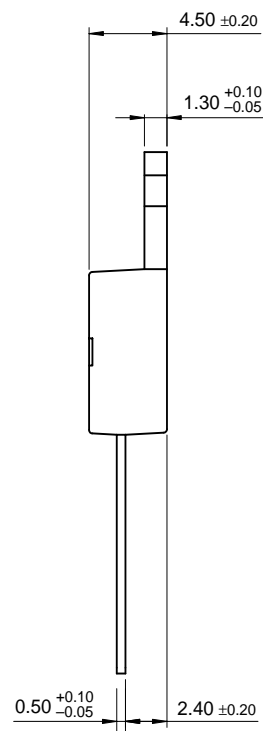


Figure 6. Power Derating

[illegible]

Rev. A1, June 2001

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