

# KSB834

KSB834

## Low Frequency Power Amplifier

- Complement to KSD880



1.Base 2.Collector 3.Emitter

## 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	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -7\text{V}, I_C = 0$			- 100	$\mu\text{A}$
$BV_{CEO}$	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		$\mu\text{s}$
$T_{STG}$	Storage Time			1.7		$\mu\text{s}$
$t_F$	Fall Time			0.5		$\mu\text{s}$

### $h_{FE}$ Classification

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

# Typical Characteristics

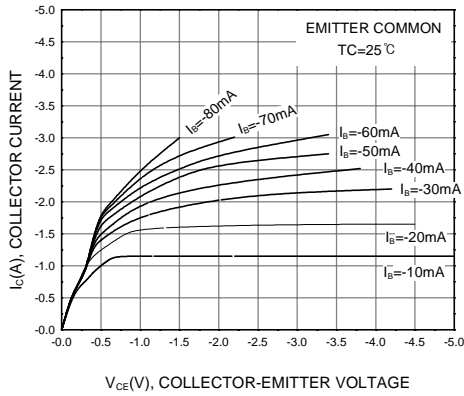


Figure 1. Static Characteristic

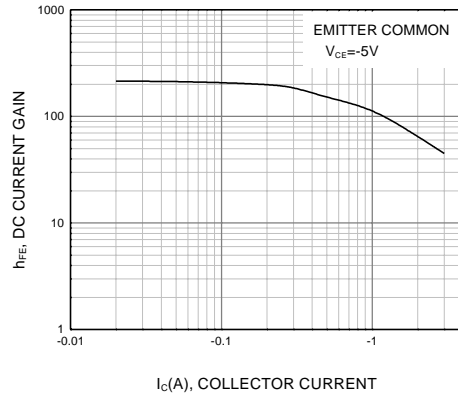


Figure 2. DC current Gain

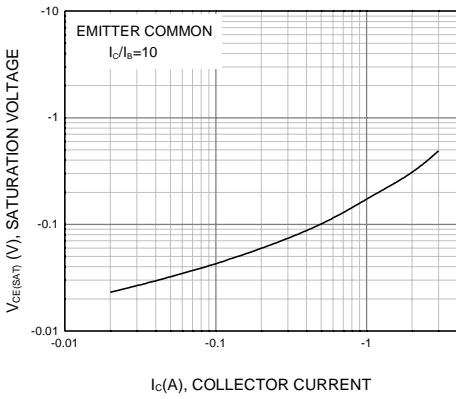


Figure 3. Collector-Emitter Saturation Voltage

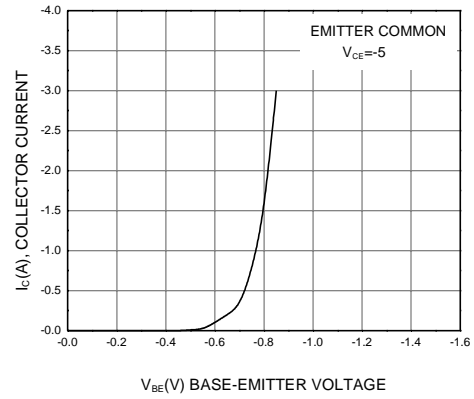


Figure 4. Base-Emitter On Voltage

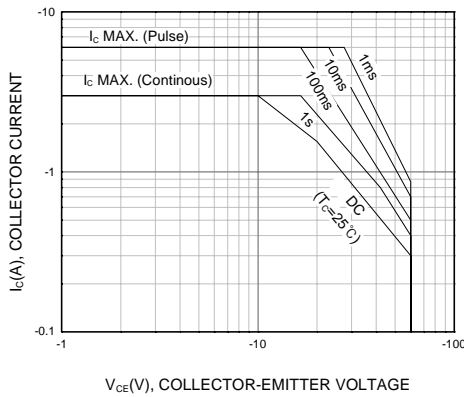


Figure 5. Safe Operating Area

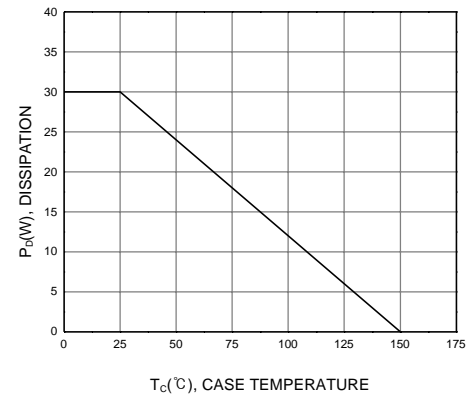


Figure 6. Power Derating

# Package Dimensions

KSB834

## TO-220



Dimensions in Millimeters

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