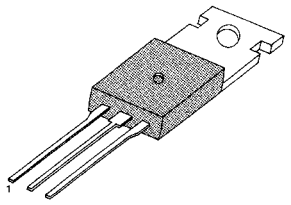
## LOW FREQUENCY POWER AMPLIFIER

- **Complement to KSD880**

TO-220



1. Base 2. Collector 3. Emitter

## ABSOLUTE MAXIMUM RATINGS ($T_a$=25°C)

| Characteristic | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | −60 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | −60 | V |
| Emitter-Base Voltage | $V_{EBO}$ | −7 | V |
| Collector Current | $I_C$ | −3 | A |
| Base Current | $I_B$ | −0.5 | A |
| Collector Dissipation ($T_a$=25°C) | $P_C$ | 1.5 | W |
| Collector Dissipation ($T_c$=25°C) | $P_C$ | 30 | W |
| Junction Temperature | Tj | 150 | °C |
| Storage Temperature | Tstg | −55~150 | °C |

## ELECTRICAL CHARACTERISTICS ($T_a$=25°C)

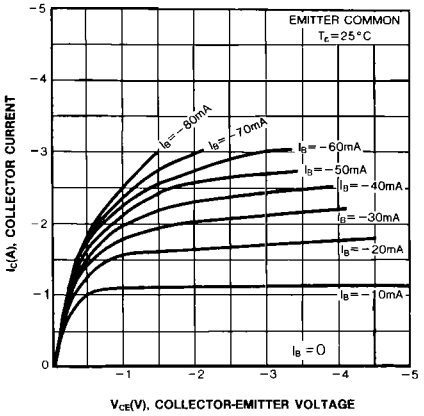
| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector Cutoff Current | $I_{CBO}$ | $V_{CB}$=−60V, $I_E$=0 | | | −100 | μA |
| Emitter Cutoff Current | $I_{EBO}$ | $V_{EB}$=−7V, $I_C$=0 | | | −100 | μA |
| Collector-Emitter Breakdown Voltage | $BV_{CEO}$ | $I_C$=−50mA, $I_B$=0 | −60 | | | V |
| DC Current Gain | $h_{FE1}$ | $V_{CE}$=−5V, $I_C$=−0.5A | 60 | | 200 | |
| | $h_{FE2}$ | $V_{CE}$=−5V, $I_C$=−3A | 20 | | | |
| Collector Emitter Saturation Voltage | $V_{CE}$ (sat) | $I_C$=−3A, $I_B$=−0.3A | | −0.5 | −1 | V |
| Base Emitter On Voltage | $V_{BE}$ (on) | $V_{CE}$=−5V, $I_C$=−0.5A | | −0.7 | −1 | V |
| Current Gain Bandwidth Product | $f_T$ | $V_{CE}$=−5V, $I_C$=−0.5A | | 9 | | MHz |
| Collector Output Capacitance | Cob | $V_{CB}$=−10V, $I_E$=0<br>f=1MHz | | 150 | | pF |
| Turn on Time | ton | | | 0.4 | | μs |
| Storage Time | ts | $-I_B1=I_B2$=0.2A | | 1.7 | | μs |
| Fall Time | tf | $V_{CC}$=−30V | | 0.5 | | μs |

## $h_{FE}$(1) CLASSIFICATION

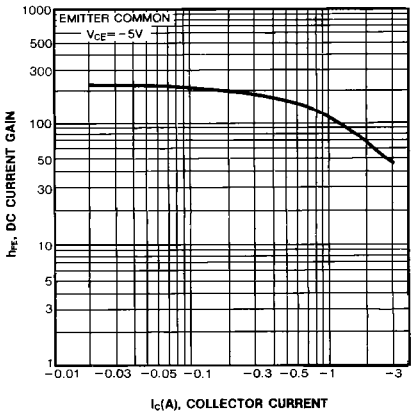
| Classification | O | Y |
|---|---|---|
| $h_{FE}$(1) | 60-120 | 100-200 |

# PNP Transistor KSB834 datasheet

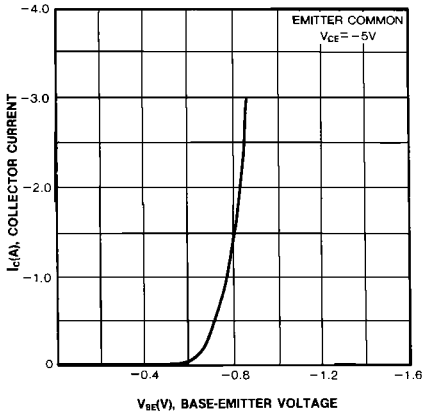
STATIC CHARACTERISTIC



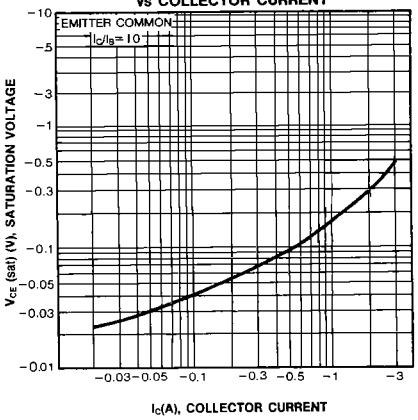

DC CURRENT GAIN



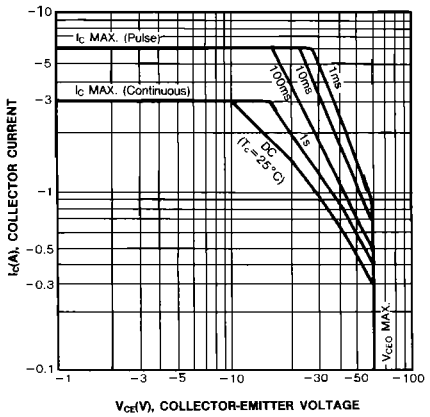

BASE-EMITTER ON VOLTAGE




COLLECTOR-EMITTER SATURATION VOLTAGE vs COLLECTOR CURRENT




SAFE OPERATING AREA




POWER DERATING