

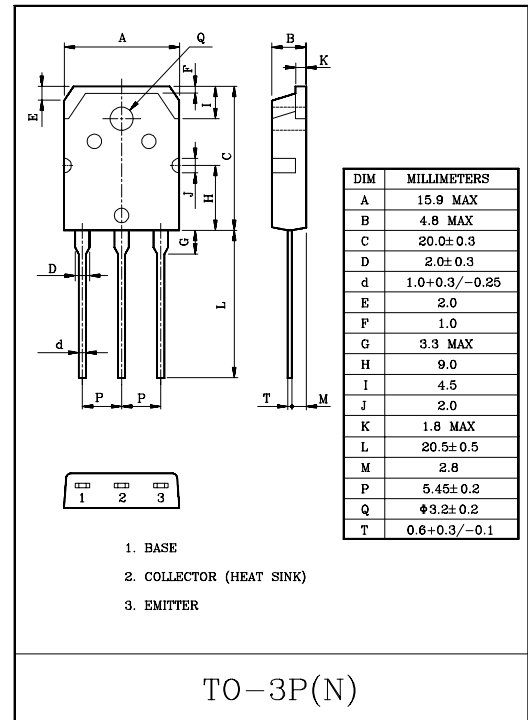
### HIGH POWER AMPLIFIER APPLICATION.

#### FEATURES

- Complementary to KTD1047.
- Recommended for 60W Audio Frequency Amplifier Output Stage.

#### MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC                        |       | SYMBOL    | RATING    | UNIT |
|---------------------------------------|-------|-----------|-----------|------|
| Collector-Base Voltage                |       | $V_{CBO}$ | -160      | V    |
| Collector-Emitter Voltage             |       | $V_{CEO}$ | -140      | V    |
| Emitter-Base Voltage                  |       | $V_{EBO}$ | -6        | V    |
| Collector Current                     | DC    | $I_C$     | -12       | A    |
|                                       | Pulse |           | -15       |      |
| Collector Power Dissipation (Tc=25°C) |       | $P_C$     | 100       | W    |
| Junction Temperature                  |       | $T_j$     | 150       | °C   |
| Storage Temperature Range             |       | $T_{stg}$ | -55 ~ 150 | °C   |

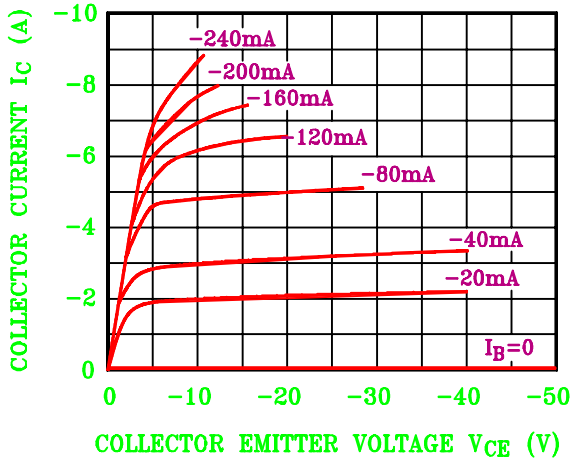


#### ELECTRICAL CHARACTERISTICS (Ta=25°C)

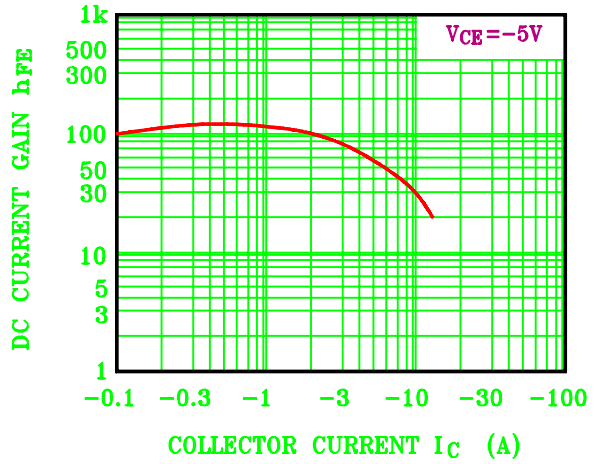
| CHARACTERISTIC                       | SYMBOL            | TEST CONDITION   | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|-------------------|--|------|------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$         | $V_{CB}=-80V, I_E=0$   | -    | -    | -0.1 | mA      |
| Emitter Cut-off Current              | $I_{EBO}$         | $V_{EB}=-4V, I_C=0$  | -    | -    | -0.1 | mA      |
| DC Current Gain                      | $h_{FE} 1$ (Note) | $V_{CE}=-5V, I_C=-1A$  | 60   | -    | 200  |         |
|                                      | $h_{FE} 2$        | $V_{CE}=-5V, I_C=-6A$  | 20   | -    |      |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$     | $I_C=-5A, I_B=-0.5A$   | -    | -    | -2.5 | V       |
| Base-Emitter On Voltage              | $V_{BE(ON)}$      | $V_{CE}=-5V, I_C=-1A$  | -    | -    | -1.5 | V       |
| Transition Frequency                 | $f_T$             | $V_{CE}=-5V, I_C=-1A$  | -    | 15   | -    | MHz     |
| Output Capacitance                   | $C_{ob}$          | $V_{CB}=-10V, f=1MHz$  | -    | 300  | -    | pF      |
| Turn On Time                         | $t_{on}$          | $V_{CC}=-20V$<br>$I_C=1A=10 \cdot I_{B1}=-10 \cdot I_{B2}$<br>$R_L=20\Omega$ | -    | 0.25 | -    | $\mu S$ |
| Fall Time                            | $t_f$             |  | -    | 0.53 | -    |         |
| Storage Time                         | $t_{stg}$         |  | -    | 1.61 | -    |         |

Note :  $h_{FE}$  Classification O:60~120 , Y:100~200

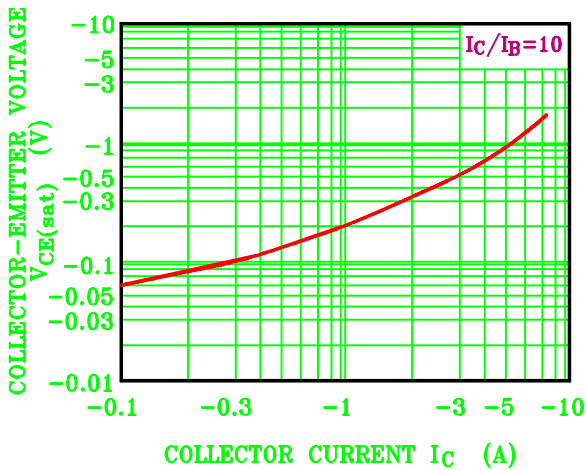
$I_C - V_{CE}$



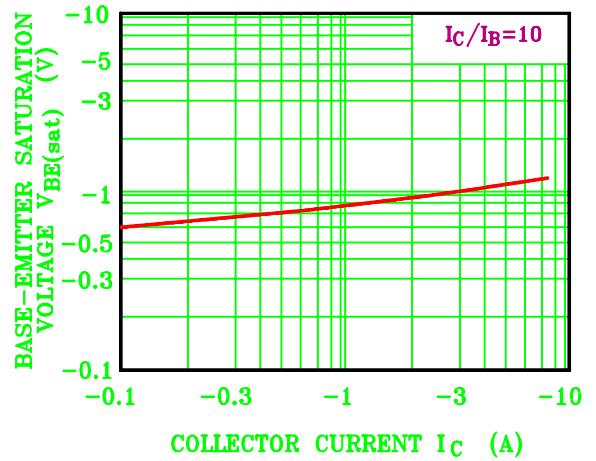
$h_{FE} - I_C$



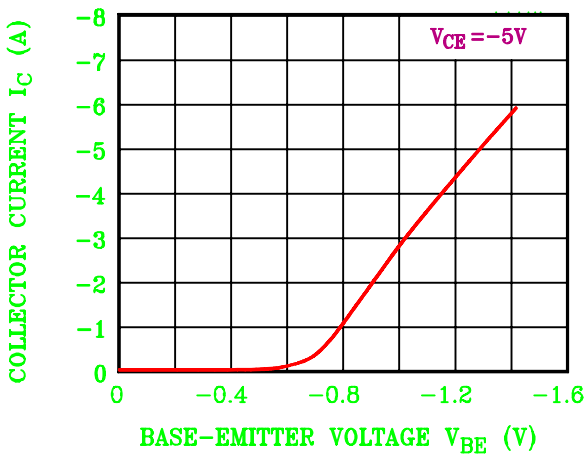
$V_{CE(sat)} - I_C$



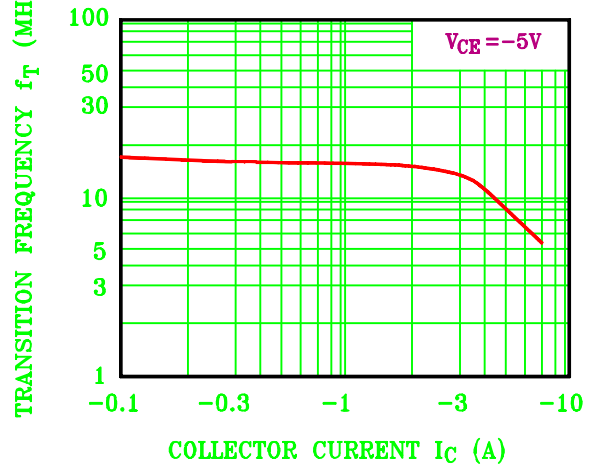
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$f_T - I_C$



# KTB817

