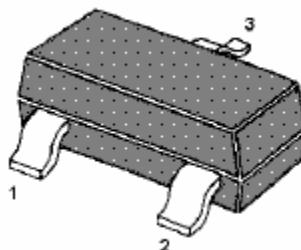


Kingtronics® Kt®**BC807****PNP Silicon Epitaxial Planar Transistors****For switching, AF driver and amplifier applications**

These transistors are subdivided into three groups

-16, -25 and -40, according to their current gain.

As complementary types the NPN transistors BC817 and BC818 are recommended.



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| PARAMETER | SYMBOL | VALUE | UNIT |
|--|-----------------|---------------|------------------|
| Collector Base Voltage | $-V_{CB0}$ | 50 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 45 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 5 | V |
| Collector Current | $-I_C$ | 500 | mA |
| Power Dissipation | P_{tot} | 200 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 500 | K/W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | - 55 to + 150 | $^\circ\text{C}$ |

Electrical Characteristics at $T_a = 25^\circ\text{C}$

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|---|---------------|------|------|------|------|
| DC Current Gain | | | | | |
| at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$ | h_{FE} | 100 | | 250 | |
| Current Gain Group -16 | | 160 | - | 400 | - |
| -25 | | 250 | | 600 | |
| at $-V_{CE} = 1\text{ V}$, $-I_C = 500\text{ mA}$ | | 40 | | - | |
| Collector Base Cutoff Current | $-I_{CBO}$ | - | - | 100 | nA |
| at $-V_{CB} = 20\text{ V}$ | | | | | |
| Emitter-Base Cutoff Current | $-I_{EBO}$ | - | - | 100 | nA |
| at $-V_{EB} = 5\text{ V}$ | | | | | |
| Collector Saturation Voltage | $-V_{CEsat}$ | - | - | 0.7 | V |
| at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$ | | | | | |
| Base-Emitter Voltage | $-V_{BE(on)}$ | - | - | 1.2 | V |
| at $-I_C = 500\text{ mA}$, $-V_{CE} = 1\text{ V}$ | | | | | |
| Gain-Bandwidth Product | f_t | 80 | - | - | MHz |
| at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 50\text{ MHz}$ | | | | | |
| Collector-Base Capacitance | C_{CBO} | - | 9 | - | pF |
| at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | | | | | |

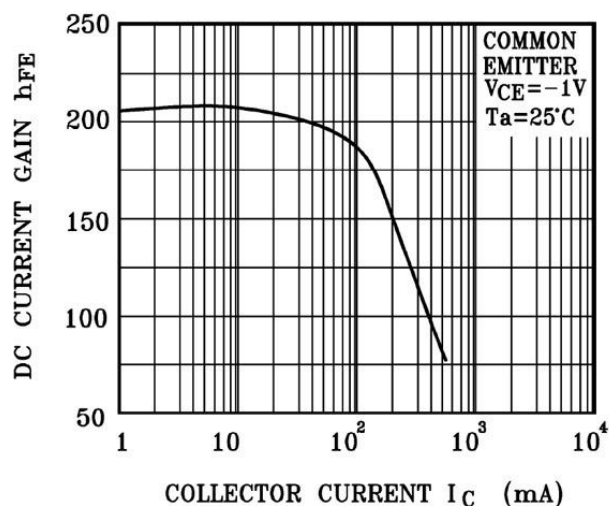
Kingtronics® Kt®

BC807

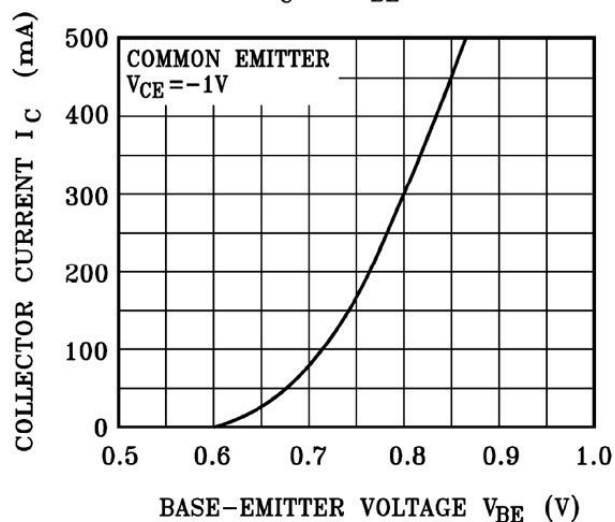
PNP Silicon Epitaxial Planar Transistors

RATINGS AND CHARACTERISTIC CURVES BC807

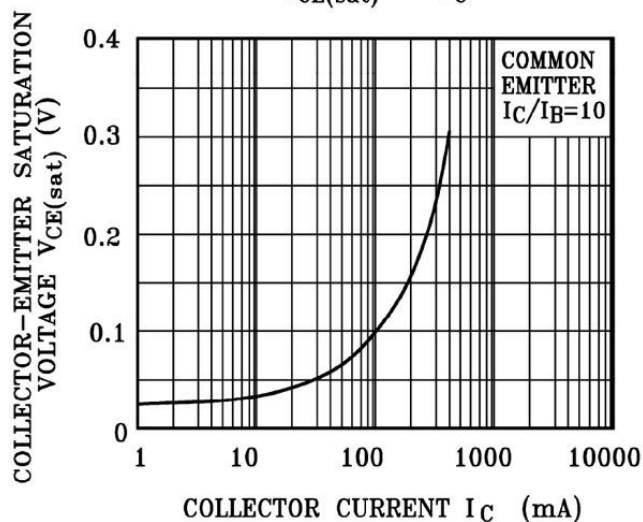
$h_{FE} - I_C$



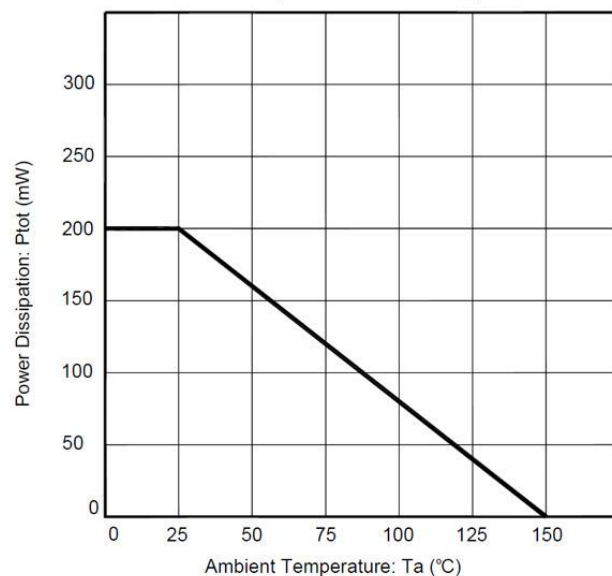
$I_C - V_{BE}$



$V_{CE(sat)} - I_C$



Power Dissipation vs Ambient Temperature



Note: Specifications are subject to change without notice.