

BC807 / BC808

PNP Silicon Epitaxial Planar Transistors

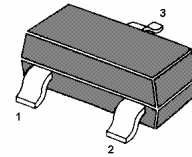
for switching, AF driver and amplifier applications

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.



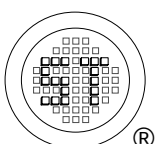
1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50 30	V
Collector Emitter Voltage	$-V_{CEO}$	45 25	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	$^\circ\text{C}$

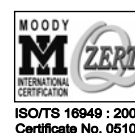
Electrical Characteristics at $T_a = 25^\circ\text{C}$

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

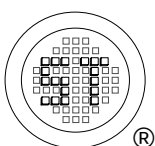
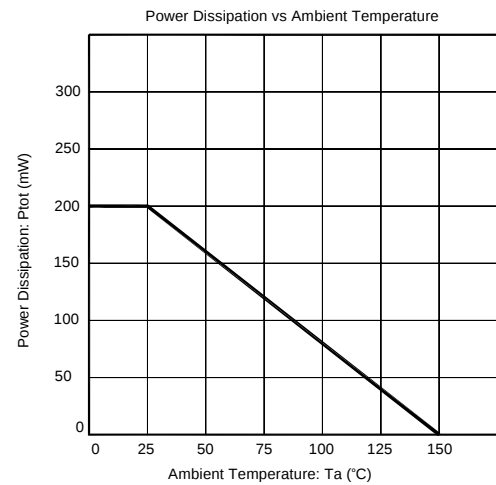
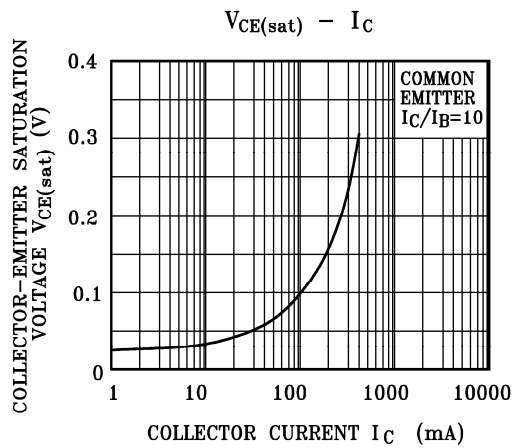
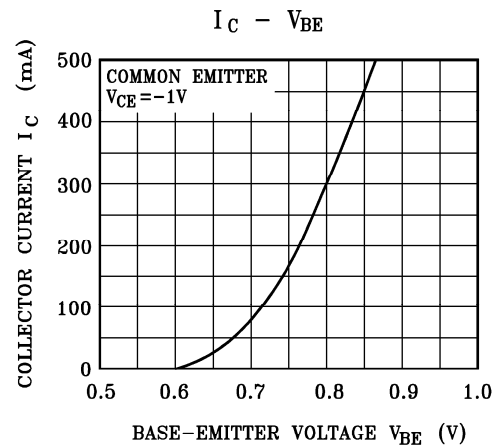
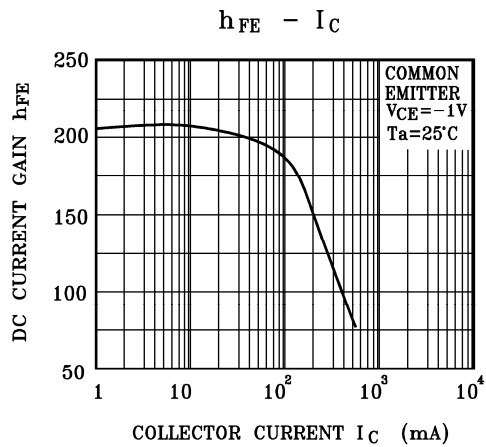


SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
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