

Kingtronics®

BC817

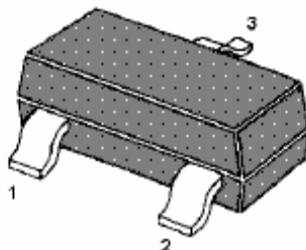
NPN Silicon Epitaxial Planar Transistors

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 PNP transistors BC807 and BC808 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	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	$R_{\theta JA}$	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 $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$					
Current Gain Group -16		100		250	
-25	h_{FE}	160	-	400	-
-40		250		600	
at $V_{CE} = 1\text{ V}$, $I_C = 500\text{ mA}$		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	100	-	-	MHz
Collector-Base Capacitance					
at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{CBO}	-	5	-	pF

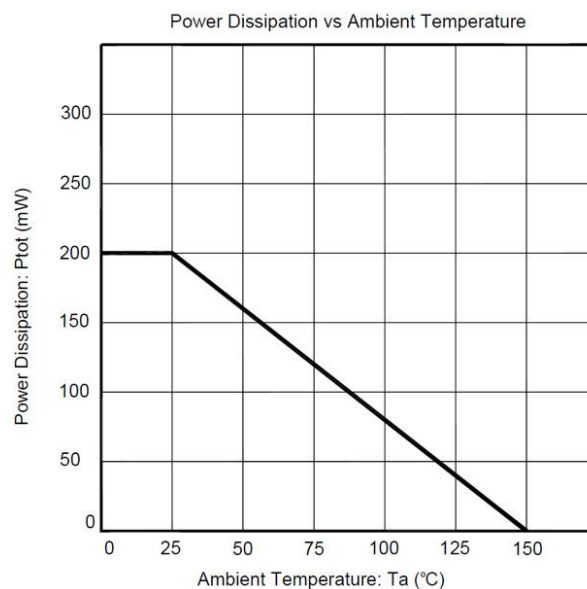
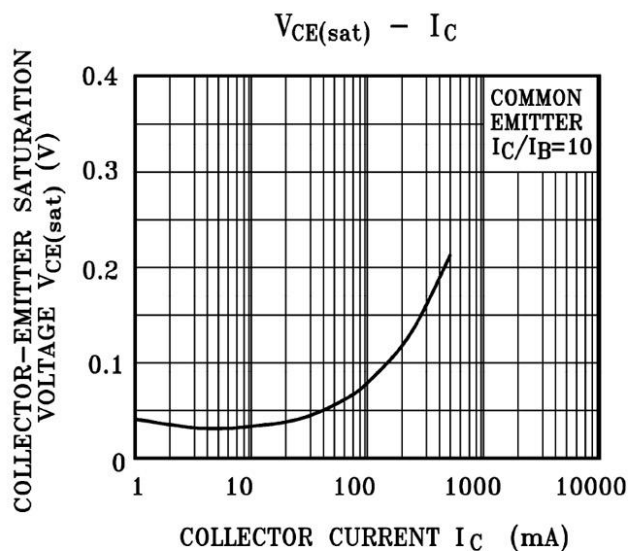
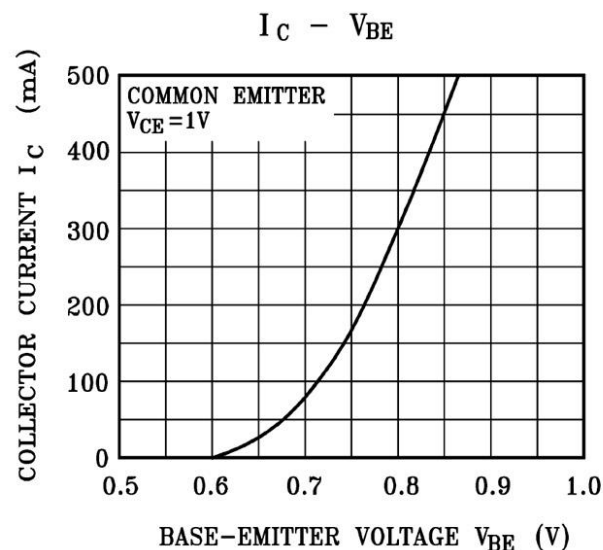
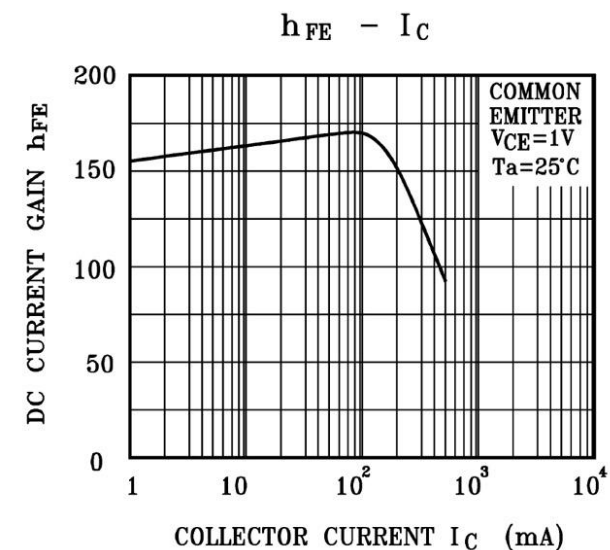
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Kingtronics®**BC817****NPN Silicon Epitaxial Planar
Transistors****RATINGS AND CHARACTERISTIC CURVES BC817**

Note: Specifications are subject to change without notice.

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