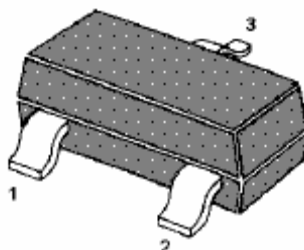


**Kingtronics**®**BC846~BC850**NPN Silicon Epitaxial  
Transistors**For switching and amplifier applications**

As complementary types the PNP transistors

BC856~BC860 is recommended.

1.Base 2.Emitter 3.Collector  
SOT-23 Plastic Package**Absolute Maximum Ratings (Ta = 25°C)**

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	BC846	80	V
	BC847, BC850	50	
	BC848, BC849	30	
Collector Emitter Voltage	BC846	65	V
	BC847, BC850	45	
	BC848, BC849	30	
Emitter Base Voltage	BC846, BC847	6	V
	BC848, BC849, BC850	5	
Collector Current	I <sub>c</sub>	100	mA
Peak Collector Current	I <sub>CM</sub>	200	mA
Power Dissipation	P <sub>tot</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>S</sub>	- 65 to + 150	°C

**Characteristics at Tamb = 25°C**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
DC Current Gain at V <sub>CE</sub> = 5 V, I <sub>C</sub> = 2 mA	A	110	-	220	-
	B	200	-	450	
	C	420	-	800	
Collector Emitter Saturation Voltage at I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0.5 mA at I <sub>C</sub> = 100 mA, I <sub>B</sub> = 5 mA	V <sub>CEsat</sub>	-	-	250	mV
		-	-	600	
Base Emitter On Voltage at I <sub>C</sub> = 2 mA, V <sub>CE</sub> = 5 V at I <sub>C</sub> = 10 mA, V <sub>CE</sub> = 5 V	V <sub>BE(on)</sub>	580	-	700	mV
		-	-	720	
Collector Cutoff Current at V <sub>CB</sub> = 30 V	I <sub>CBO</sub>	-	-	15	nA
Current Gain Bandwidth Product at V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10 mA, f = 100 MHz	f <sub>T</sub>	-	300	-	MHz
Output Capacitance at V <sub>CB</sub> = 10 V, f = 1 MHz	C <sub>ob</sub>	-	-	6	pF
Input Capacitance at V <sub>EB</sub> = 0.5 V, f = 1 MHz	C <sub>ib</sub>	-	9	-	pF
Noise Figure at I <sub>C</sub> = 200 μA, V <sub>CE</sub> = 5 V, R <sub>G</sub> = 2 KΩ, f = 1 KHz	NF	BC846, BC847, BC848	-	10	dB
		BC849, BC850	-	4	
at I <sub>C</sub> = 200 μA, V <sub>CE</sub> = 5 V, R <sub>G</sub> = 2 KΩ, f = 30~15 KHz	BC849	-	-	4	dB
		BC850	-	-	

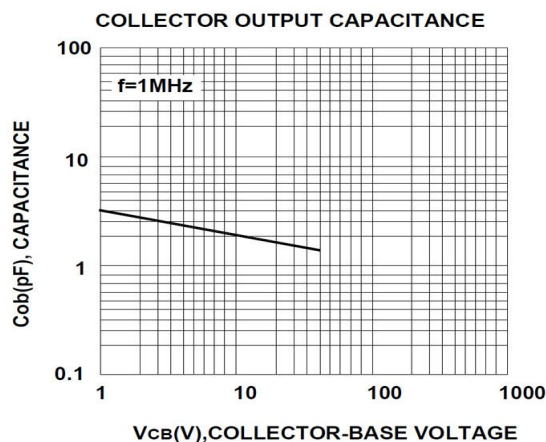
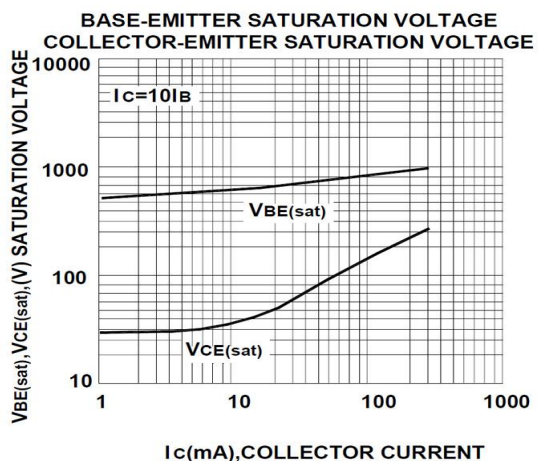
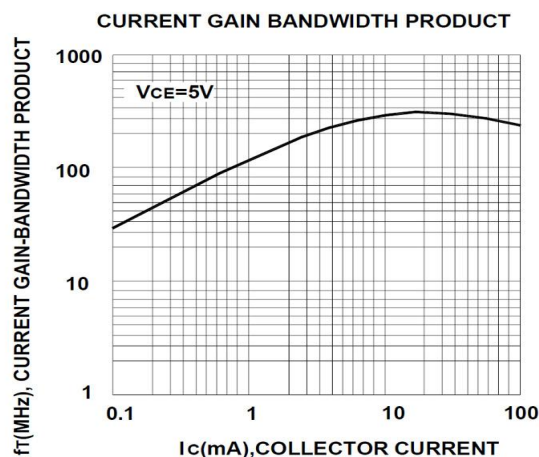
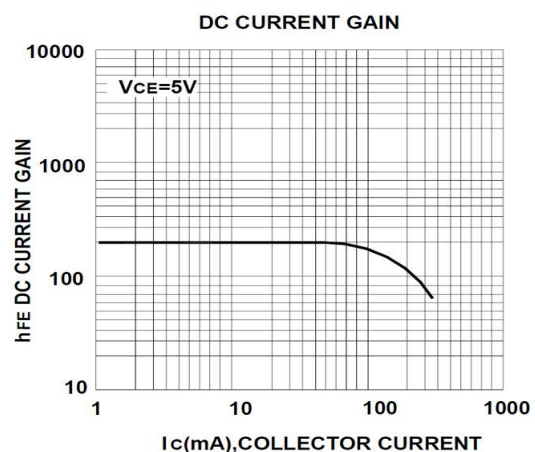
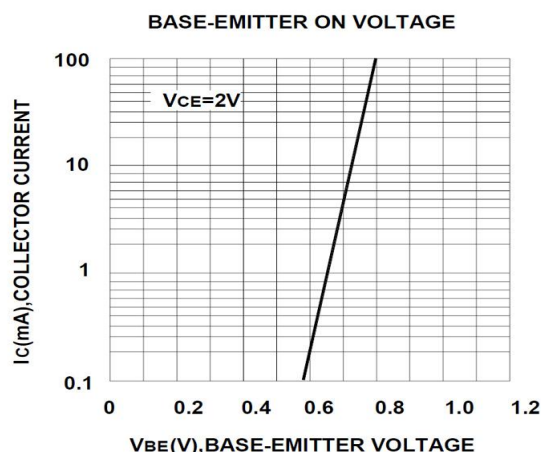
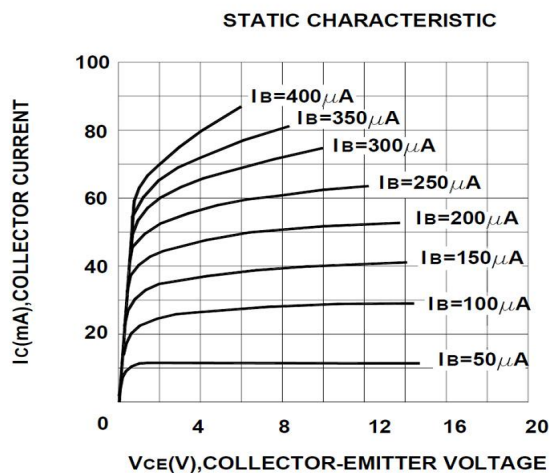
**Kingtronics**® International Company

# Kingtronics®

## BC846~BC850

NPN Silicon Epitaxial Transistors

### RATINGS AND CHARACTERISTIC CURVES BC846 THUR BC850



Note: Specifications are subject to change without notice.

**Kingtronics® International Company**