

Kingtronics®

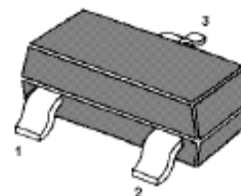
BC856~BC859

PNP Silicon Epitaxial Transistors

For switching and amplifier applications

1.Base 2.Emitter 3.Collector

SOT-23 Plastic Package



Absolute Maximum Ratings (Ta = 25°C)

PARAMETER		SYMBOL	VALUE	UNIT
Collector Base Voltage	BC856	-V _{CBO}	80	V
	BC857		50	
	BC858, BC859		30	
Collector Emitter Voltage	BC856	-V _{CEO}	65	V
	BC857		45	
	BC858, BC859		30	
Emitter Base Voltage		-V _{EBO}	5	V
Collector Current		-I _C	100	mA
Peak Collector Current		-I _{CM}	200	mA
Power Dissipation		P _{tot}	200	mW
Junction Temperature		T _J	150	°C
Storage Temperature Range		T _{stg}	- 65 to + 150	°C

Characteristics at Ta = 25°C

PARAMETER		SYMBOL	MIN.	MAX.	UNIT
DC Current Gain at -V _{CE} = 5 V, -I _C = 2 mA	Current Gain Group	A	125	220	-
		B	220	475	
		C	420	800	
Collector Base Cutoff Current at -V _{CB} = 30 V		-I _{CBO}	-	15	nA
Collector Base Breakdown Voltage at -I _C = 10 μA	BC856	-V _{(BR)CBO}	80	-	V
	BC857		50		
	BC858, BC859		30		
Collector Emitter Breakdown Voltage at -I _C = 10 μA	BC856	-V _{(BR)CES}	80	-	V
	BC857		50		
	BC858, BC859		30		
Collector Emitter Breakdown Voltage at -I _C = 10 mA	BC856	-V _{(BR)CEO}	65	-	V
	BC857		45		
	BC858, BC859		30		
Emitter Base Breakdown Voltage at -I _E = 1 μA		-V _{(BR)EBO}	5	-	V
Collector Emitter Saturation Voltage at -I _C = 10 mA, -I _B = 0.5 mA at -I _C = 100 mA, -I _B = 5 mA		-V _{CE(sat)}	-	0.3	V
Base Emitter On Voltage at -I _C = 2 mA, -V _{CE} = 5 V at -I _C = 10 mA, -V _{CE} = 5 V		-V _{BE(sat)}	0.6	0.75	V
				-	
Current Gain Bandwidth Product at -V _{CE} = 5 V, -I _C = 10 mA, f = 100 MHz		f _T	100	-	MHz
Output Capacitance at -V _{CB} = 10 V, f = 1 MHz		C _{ob}	-	6	pF
Noise Figure at -I _C = 200 μA, -V _{CE} = 5 V, R _G = 2 KΩ, f = 1 KHz	BC856, BC857, BC858	NF	-	10	dB
	BC859			4	
	BC859			4	
at -I _C = 200 μA, -V _{CE} = 5 V, R _G = 2 KΩ, f = 30~15 KHz					

Kingtronics® International Company

RATINGS AND CHARACTERISTIC CURVES BC856 THUR BC859

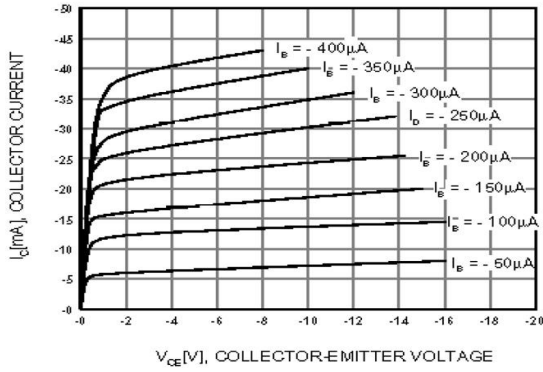


Figure 1. Static Characteristic

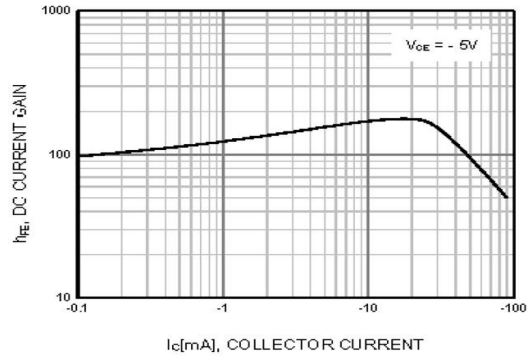


Figure 2. DC current Gain

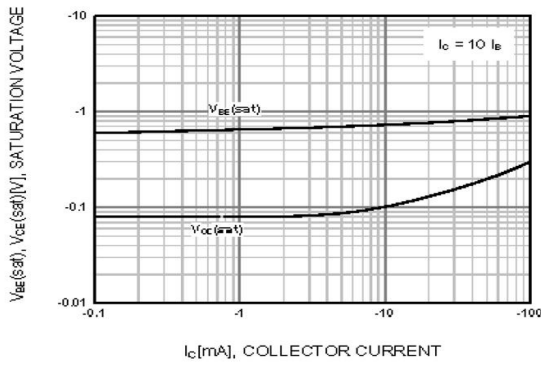


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

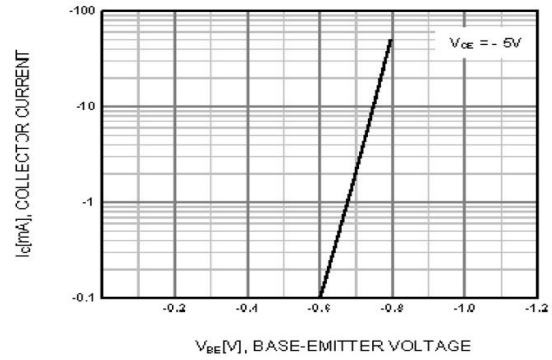


Figure 4. Base-Emitter On Voltage

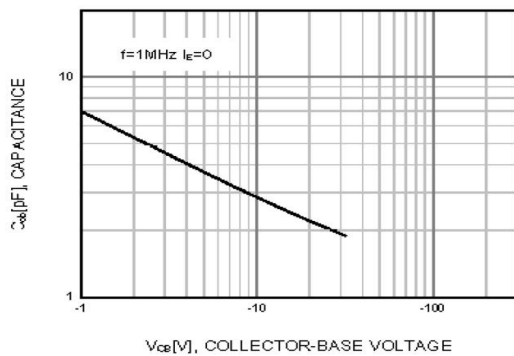


Figure 5. Collector Output Capacitance

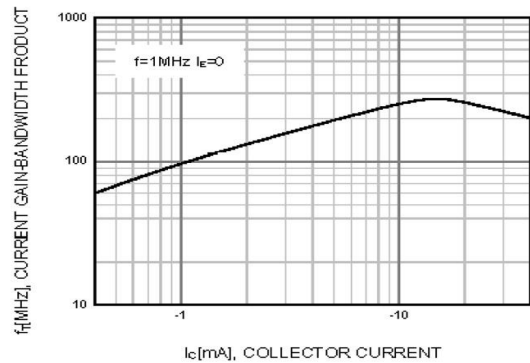


Figure 6. Current Gain Bandwidth Product

Note: Specifications are subject to change without notice.