

**FEATURES**

For general AF applications

High collector current

High current gain

Low collector-emitter saturation voltage

**BC846A/B** (NPN)

**BC847A/B/C** (NPN)

**BC848A/B/C** (NPN)

**Marking**

BC846A	BC846B	BC847A	BC847B
1A	1B	1E	1F

BC847C	BC848A	BC848B	BC848C
1G	1J	1K	1L

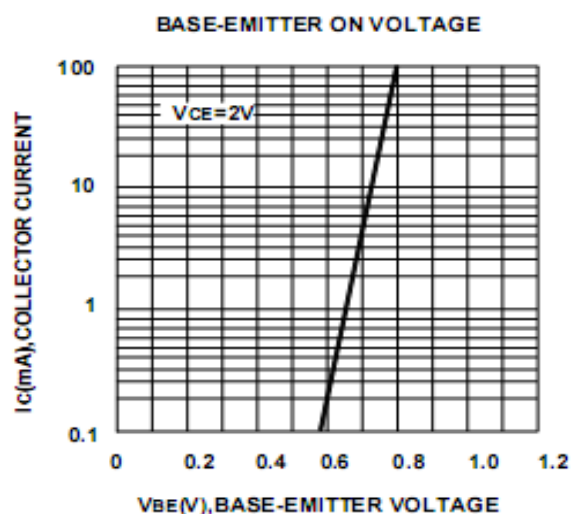
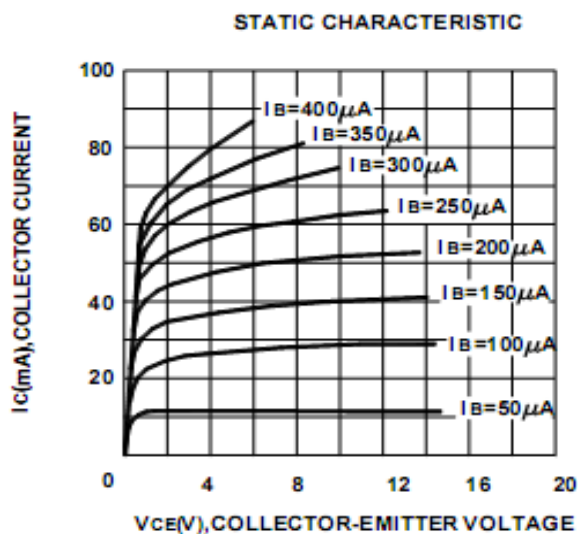

**MAXIMUM RATINGS (TA=25°C unless otherwise noted)**

Parameter		Symbol	Value	Unit
Collector-Base Voltage	BC846	$V_{CBO}$	80	V
	BC847	$V_{CBO}$	50	
	BC848	$V_{CBO}$	30	
Collector-Emitter Voltage	BC846	$V_{CEO}$	65	V
	BC847	$V_{CEO}$	45	
	BC848	$V_{CEO}$	30	
Emitter-Base Voltage		$V_{EBO}$	6	V
Collector Current -Continuous		$I_C$	0.1	A
Collector Power Dissipation		$P_C$	0.2	W
Junction Temperature		$T_J$	150	°C
Storage Temperature		$T_{stg}$	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25 °C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC846	I <sub>C</sub> = 10μA, I <sub>E</sub> =0	80			V
	BC847		50			
	BC848		30			
Collector-emitter breakdown voltage	BC846	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	65			V
	BC847		45			
	BC848		30			
Emitter-base breakdown voltage	VEBO	I <sub>E</sub> = 10μA, I <sub>C</sub> =0	6			V
Collector cut-off current	BC846	V <sub>CB</sub> =70 V, I <sub>E</sub> =0				μA
	BC847		V <sub>CB</sub> =50 V, I <sub>E</sub> =0			
	BC848		V <sub>CB</sub> =30 V, I <sub>E</sub> =0		0.1	
Collector cut-off current	BC846	V <sub>CE</sub> =60 V, I <sub>B</sub> =0				μA
	BC847		V <sub>CE</sub> =45 V, I <sub>B</sub> =0			
	BC848		V <sub>CE</sub> =30 V, I <sub>B</sub> =0		0.1	
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5 V, I <sub>C</sub> =0			0.1	μA
DC current gain	BC846A,847A,848A	V <sub>CE</sub> = 5V, I <sub>C</sub> = 2mA	110		220	
	BC846B,847B,848B		200		450	
	BC847C,BC848C		420		800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> = 5mA			0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> = 5mA			1.1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA f=100MHz	100			MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V,f=1MHz			4.5	pF

**BC846A/B**  
**BC847A/B/C** Typical Characteristics  
**BC848A/B/C**



**BC846A/B**

**BC847A/B/C** Typical Characteristics

**BC848A/B/C**

