

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

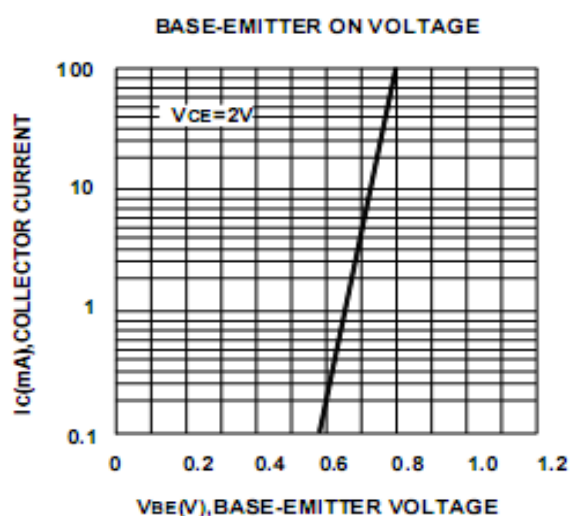
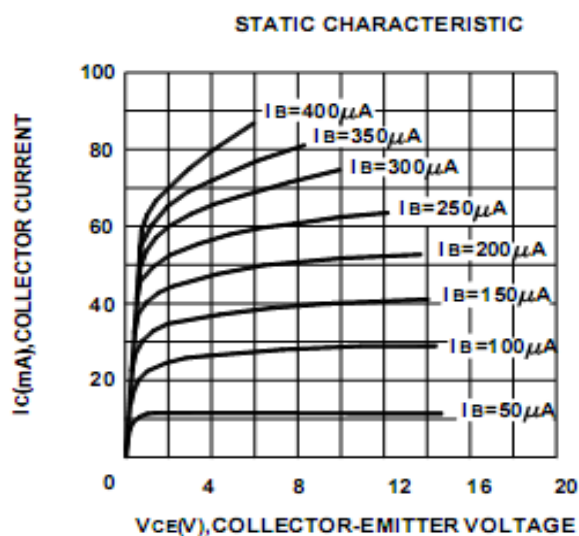
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC846 BC847 BC848	V_{CBO} $I_C=10\mu\text{A}, I_E=0$	80 50 30			V
Collector-emitter breakdown voltage	BC846 BC847 BC848	V_{CEO} $I_C=10\text{mA}, I_B=0$	65 45 30			V
Emitter-base breakdown voltage		V_{EBO} $I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	BC846 BC847 BC848	I_{CBO} $V_{CB}=70\text{V}, I_E=0$ $V_{CB}=50\text{V}, I_E=0$ $V_{CB}=30\text{V}, I_E=0$			0.1	μA
Collector cut-off current	BC846 BC847 BC848	I_{CEO} $V_{CE}=60\text{V}, I_B=0$ $V_{CE}=45\text{V}, I_B=0$ $V_{CE}=30\text{V}, I_B=0$			0.1	μA
Emitter cut-off current		I_{EBO} $V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC current gain	BC846A,847A,848A BC846B,847B,848B BC847C,BC848C	h_{FE} $V_{CE}=5\text{V}, I_C=2\text{mA}$	110 200 420		220 450 800	
Collector-emitter saturation voltage		$V_{CE(sat)}$ $I_C=100\text{mA}, I_B=5\text{mA}$			0.5	V
Base-emitter saturation voltage		$V_{BE(sat)}$ $I_C=100\text{mA}, I_B=5\text{mA}$			1.1	V
Transition frequency		f_T $V_{CE}=5\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	100			MHz
Collector output capacitance		C_{ob} $V_{CB}=10\text{V}, f=1\text{MHz}$			4.5	pF

BC846A/B

BC847A/B/C Typical Characteristics

BC848A/B/C



BC846A/B

BC847A/B/C Typical Characteristics

BC848A/B/C

