

**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

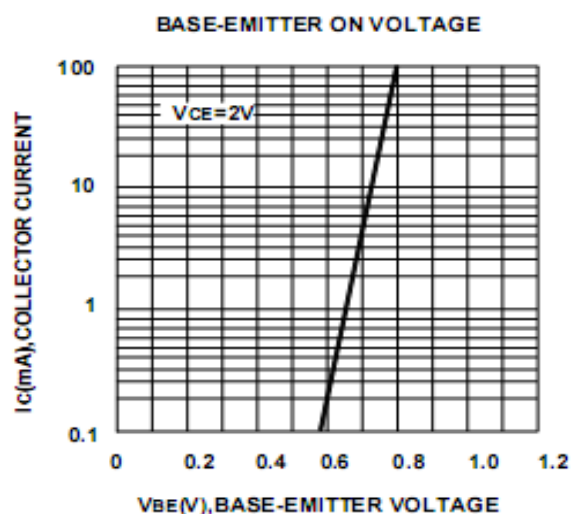
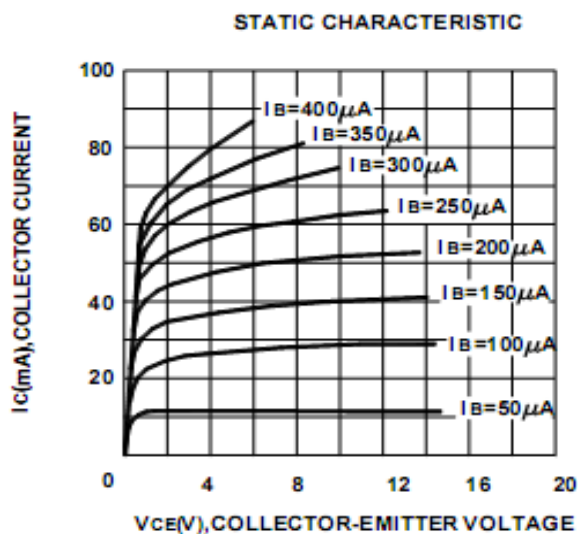

**MAXIMUM RATINGS (TA=25°C unless otherwise noted)**

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 (Tamb=25 °C unless otherwise specified)

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

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



**BC846A/B**

**BC847A/B/C** Typical Characteristics

**BC848A/B/C**

