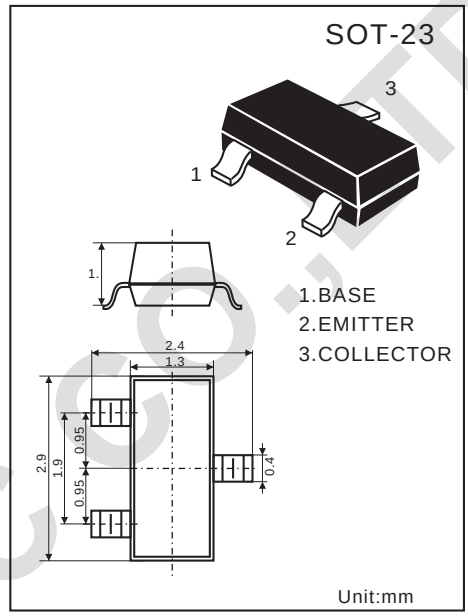
NPN SILICON TRANSISTOR

Features

- Power dissipation
  P_{CM} : 0.3 W (Tamb=25℃)
- Pluse Drain
  I_{CM} : 0.1 mA
- Reverse Voltage
  $V_{(BR)CBO}$: BC846 80V
  BC847 50V
  BC848 30V

Operating and storage junction temperature range
T_j, T_{stg} : -55℃ to +150℃



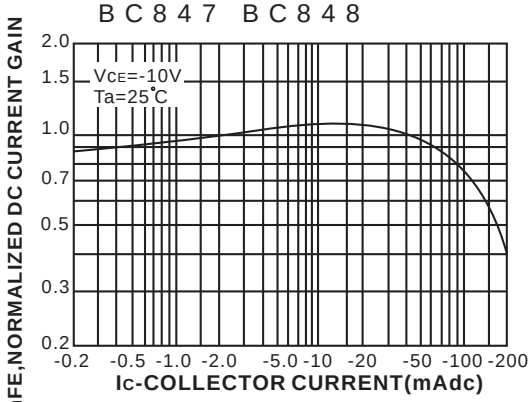
Electrical Characteristics

(Ta=25℃)

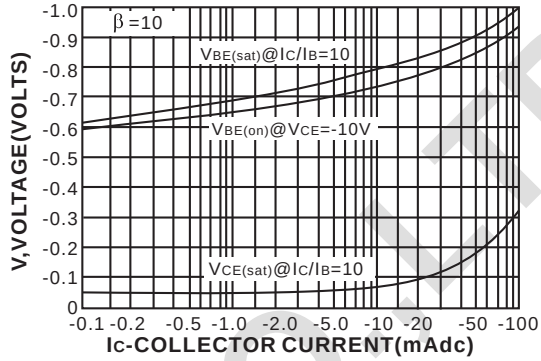
Characteristic		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BC846 BC847 BC848	$V_{(BR)CBO}$	I_C=10μA, I_E=0	80 50 30			V
Collector-Emitter Breakdown Voltage	BC846 BC847 BC848	$V_{(BR)CEO}$	I_C=10 mA, I_B=0	65 45 30			V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=1μA, I_C=0	5			V
Collector Cut-off Current	BC846 BC847 BC848	I_{CBO}	V_{CB}=70V, I_E=0 V_{CB}=45V, I_E=0 V_{CB}=25V, I_E=0			0.1	μA
Collector Cut-off Current	BC846 BC847 BC848	I_{CEO}	V_{CB}=60V, I_E=0 V_{CB}=40V, I_E=0 V_{CB}=25V, I_E=0			0.1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC Current Gain (Note)	BC846 BC847 BC848	$H_{FE(1)}$	V_{CE}=5V, I_C=2mA	125 220 420		250 475 800	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=100mA, I_B=5mA			0.5	V
Base-emitter saturatio voltage		$V_{BE(sat)}$	I_C=100mA, I_B=5mA			1	V
Transition Frequency		f_T	V_{CE}=5V, I_C=10mA ,f=100MHz	100			MHz

Typical Characteristics

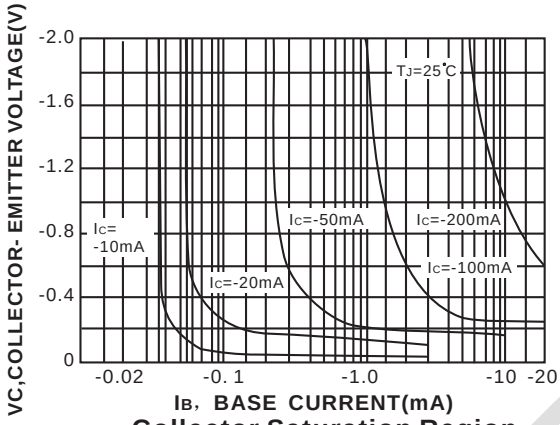
BC847 BC848



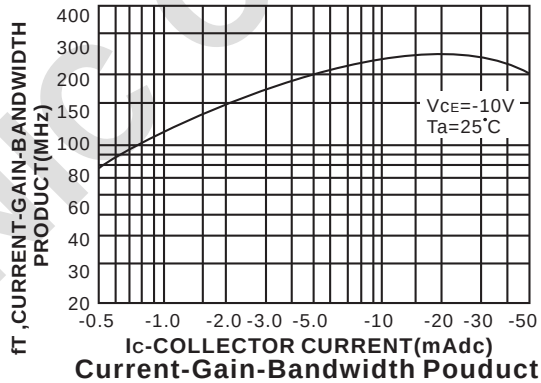
Normailzed DC Current (mAdc)



"Saturation" and "On" Voltage

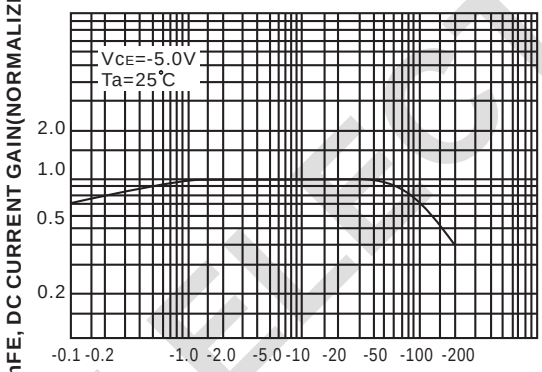


Collector Saturation Region

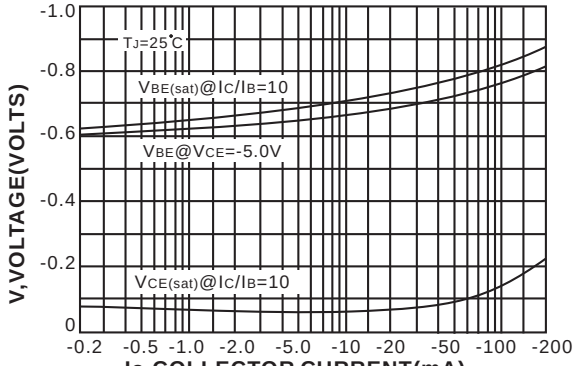


Current-Gain-Bandwidth Pouduct

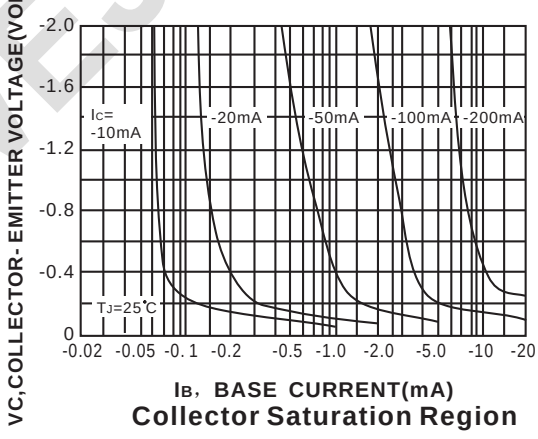
BC846



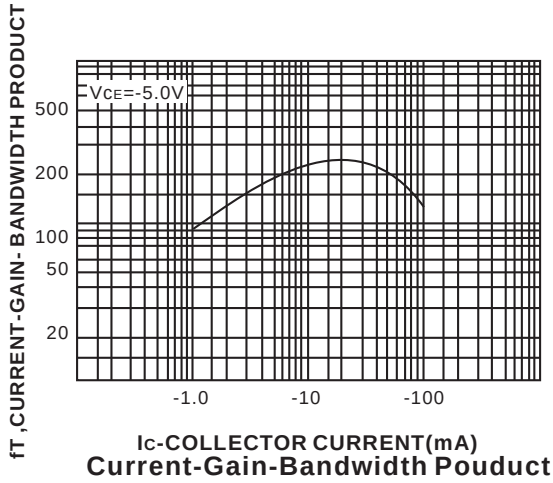
DC Current Gain



"On" Voltage



Collector Saturation Region



Current-Gain-Bandwidth Pouduct