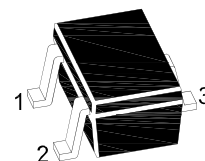


BC846BT...BC850BT

NPN Silicon Epitaxial Transistor

for switching and amplifier applications



1.Base 2.Emitter 3.Collector
SOT-523 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

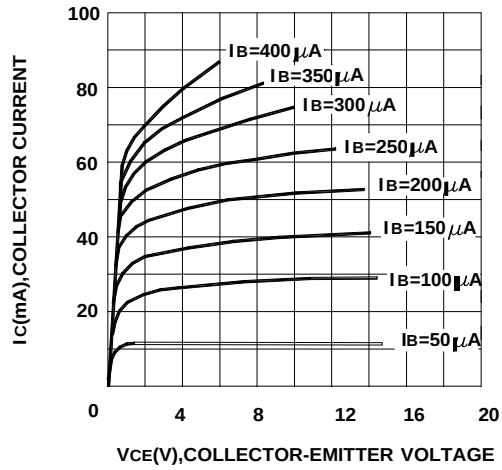
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
BC846T		50	
BC847T, BC850T		30	
Collector Emitter Voltage	V_{CEO}	65	V
BC846T		45	
BC847T, BC850T		30	
Emitter Base Voltage	V_{EBO}	6	V
BC848T, BC849T, BC850T		5	
Collector Current	I_C	100	mA
Peak Collector Current	I_{CM}	200	mA
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

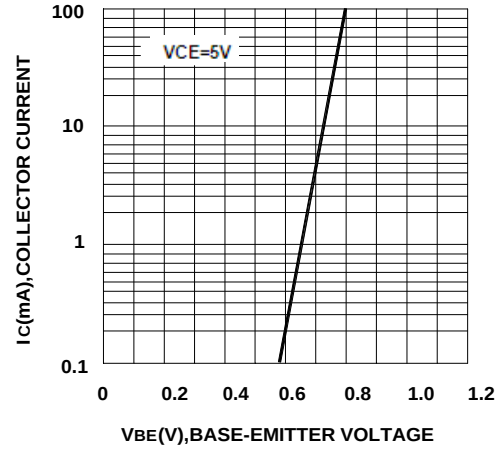
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 2\text{ mA}$	Current Gain Group A B C h_{FE} h_{FE} h_{FE}	110	-	220	-
		200	-	450	-
		420	-	800	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	15	nA
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 0.5\text{ mA}$ at $I_C = 100\text{ mA}$, $I_B = 5\text{ mA}$	$V_{CE(sat)}$ $V_{CE(sat)}$	- -	- -	250 600	mV
Base Emitter On Voltage at $V_{CE} = 5\text{ V}$, $I_C = 2\text{ mA}$ at $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$	$V_{BE(on)}$ $V_{BE(on)}$	580 -	- -	700 720	mV
Transition Frequency at $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	300	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	-	6	pF

BC846BT...BC850BT

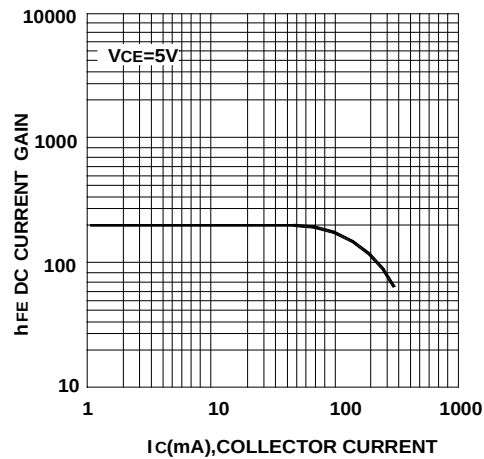
STATIC CHARACTERISTIC



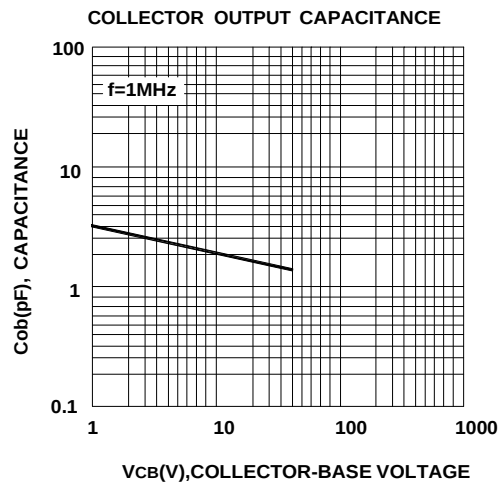
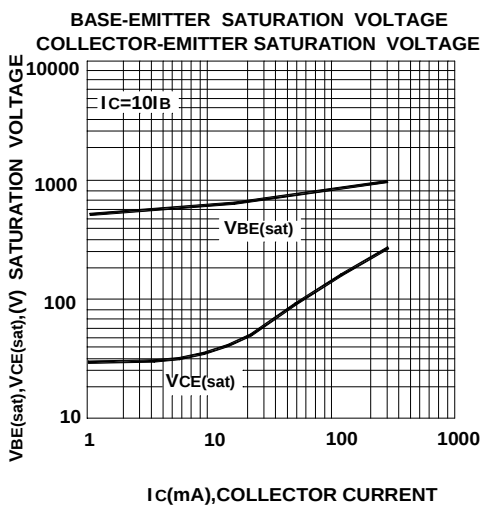
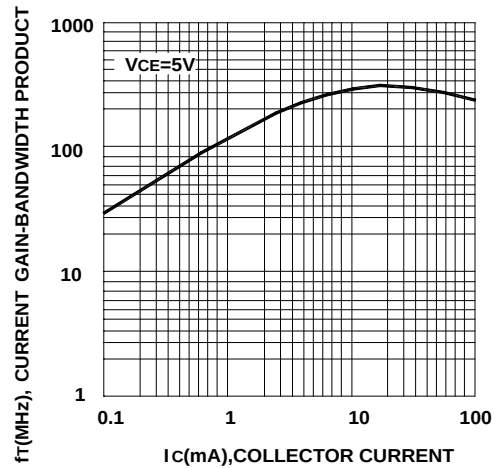
BASE-EMITTER ON VOLTAGE



DC CURRENT GAIN

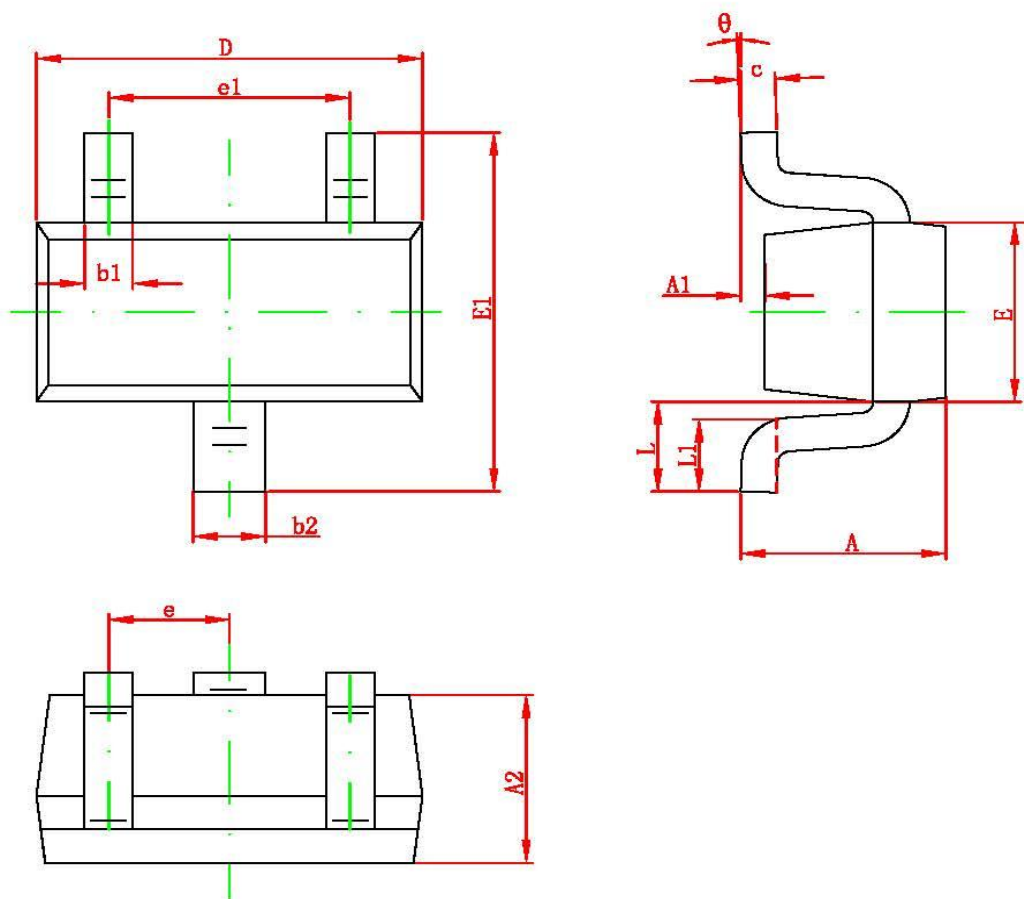


CURRENT GAIN BANDWIDTH PRODUCT





SOT-523 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°