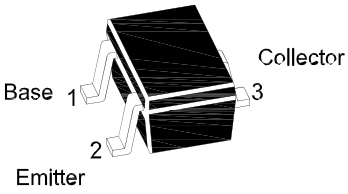
迈拓电子
MAITUO ELECTRONIC

BC846xx NPN Silicon Epitaxial Transistor

FEATURE

Ideally suited for automatic insertion

For Switching and AF Amplifier Applications



SOT-523

MARKING :

TYPE	846AT	846BT	846CT	847AT	847BT	847CT	848AT	848BT	848CT
MARKING	1A	1B	1C	1E	1F	1G	1J	1K	1L
TYPE	849AT	849BT	849CT	850AT	850BT	850CT			
MARKING	2A	2B	2C	2E	2F	2G			

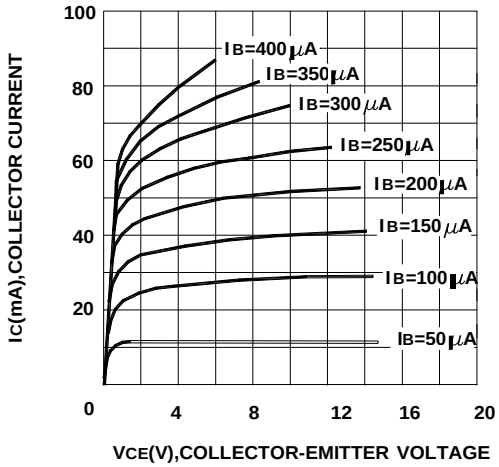
Absolute Maximum Ratings (T_a = 25 °C)

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

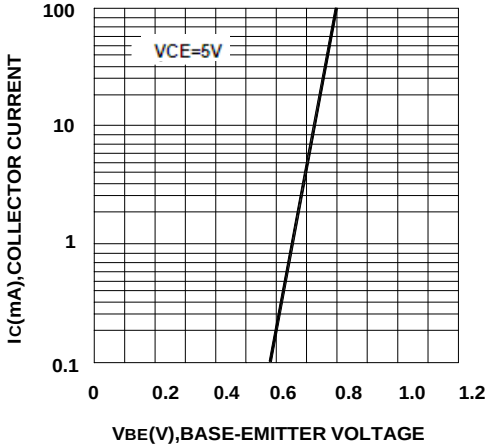
Characteristics at T_a = 25 °C

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

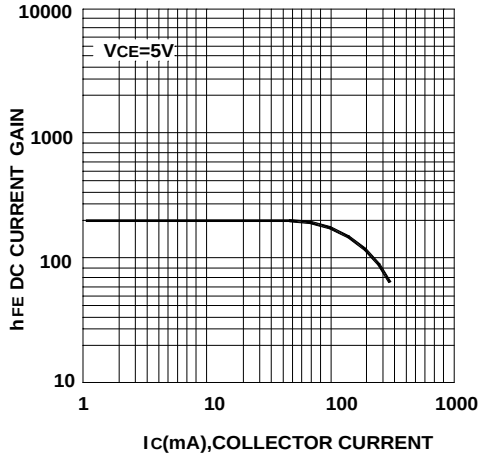
STATIC CHARACTERISTIC



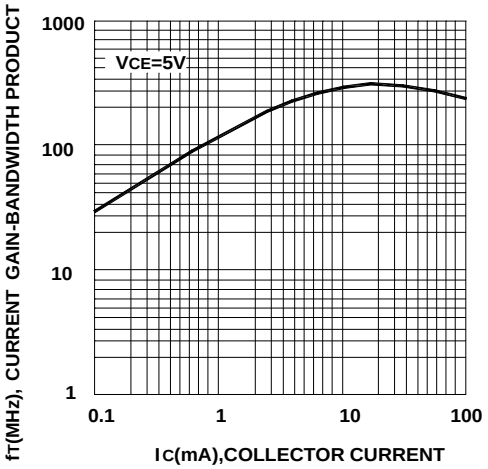
BASE-EMITTER ON VOLTAGE



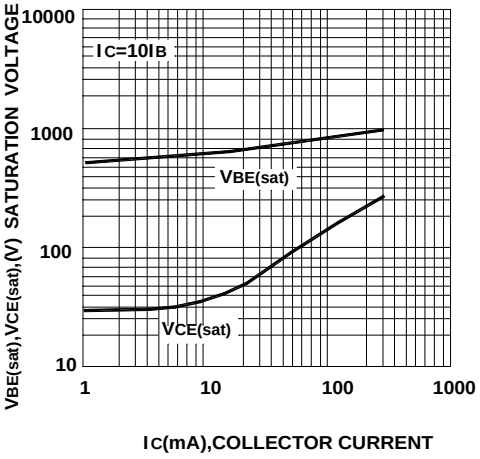
DC CURRENT GAIN



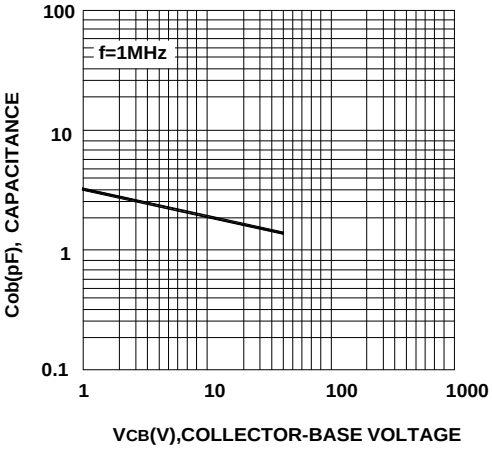
CURRENT GAIN BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE

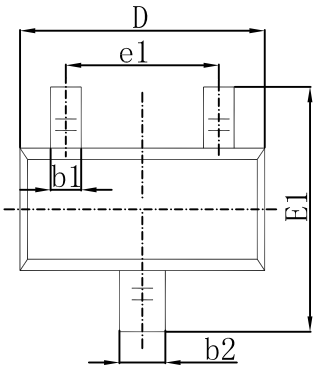


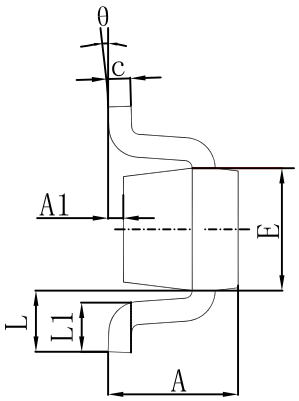
COLLECTOR OUTPUT CAPACITANCE

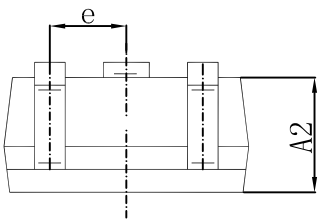


迈拓电子
MAITUO ELECTRONIC

SOT-523 Package Outline Dimensions

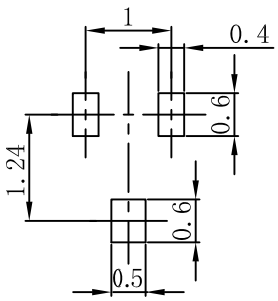






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	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°

SOT-523 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.