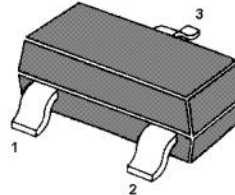


NPN Silicon Epitaxial Transistor

for switching and amplifier applications

As complementary types the PNP transistors BC856...BC860 is recommended.



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

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

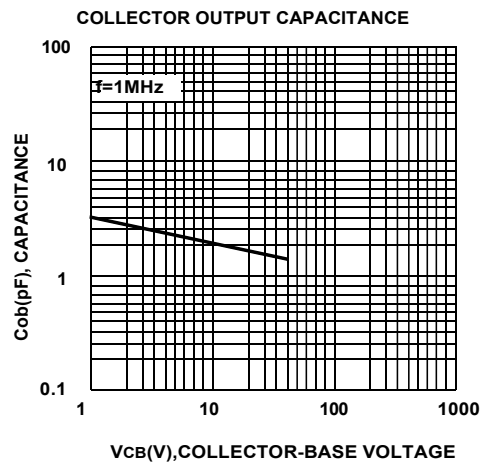
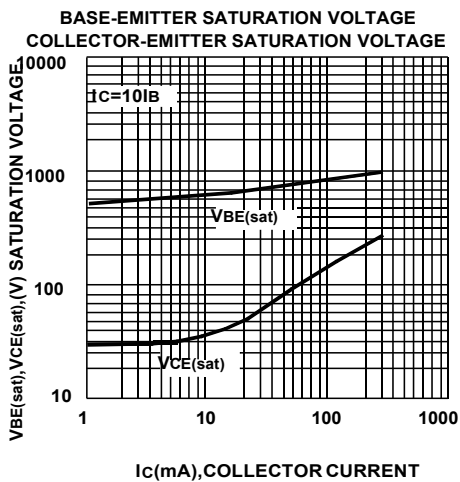
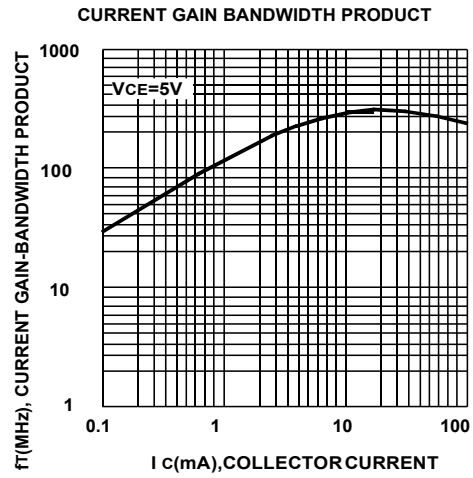
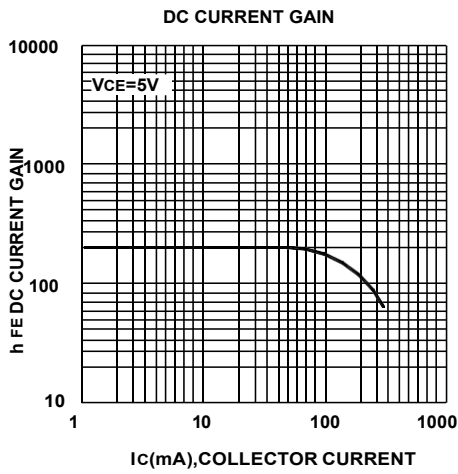
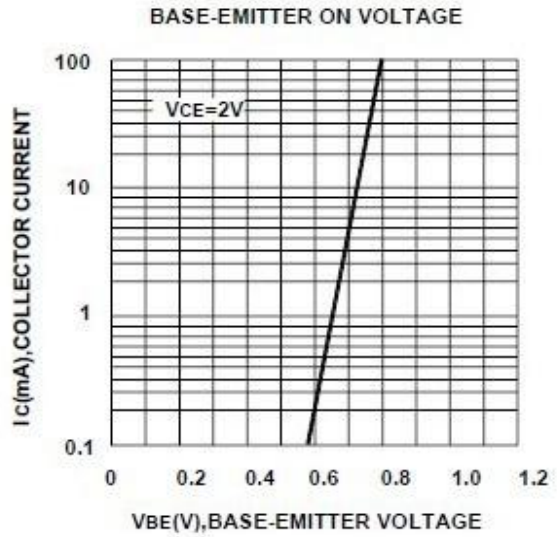
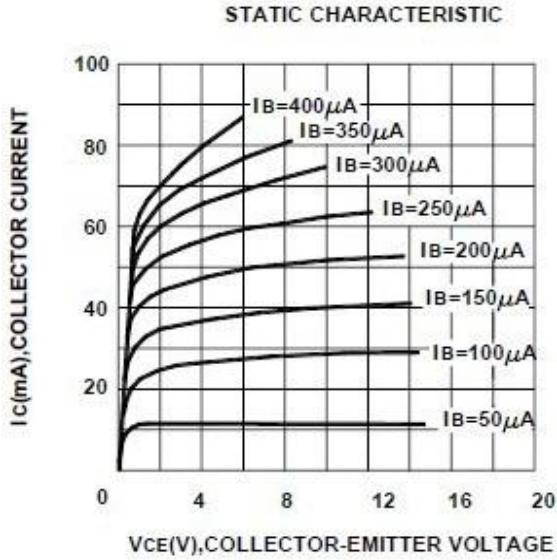
Parameter	Symbol	Value	Units	
Collector Base Voltage	BC846	V_{CBO}	80	V
	BC847, BC850	V_{CBO}	50	V
	BC848, BC849	V_{CBO}	30	V
Collector Emitter Voltage	BC846	V_{CEO}	65	V
	BC847, BC850	V_{CEO}	45	V
	BC848, BC849	V_{CEO}	30	V
Emitter Base Voltage	BC846, BC847	V_{EBO}	6	V
	BC848, BC849, BC850	V_{EBO}	5	V
Collector Current	I_C	100	mA	
Peak Collector Current	I_{CM}	200	mA	
Power Dissipation	P_{tot}	200	mW	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature Range	T_S	- 65 to + 150	$^\circ\text{C}$	

MARKING CODE

TYPE	846A	846B	846C	847A	847B	847C	848A	848B	848C	849A	849B	849C	850A	850B	850C
MARK	1A	1B	1C	1E	1F	1G	1J	1K	1L	2A	2B	2C	2E	2F	2G

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

Parameter	Symbol	Min.	Typ.	Max.	Units	
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 2\text{ mA}$	A	h_{FE}	110	-	220	-
	B	h_{FE}	200	-	450	-
	C	h_{FE}	420	-	800	-
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_{CEsat}	-	-	250	mV	
	V_{CEsat}	-	-	600	mV	
Base Emitter On Voltage at $I_C = 2\text{ mA}$, $V_{CE} = 5\text{ V}$ at $I_C = 10\text{ mA}$, $V_{CE} = 5\text{ V}$	$V_{BE(on)}$	580	-	700	mV	
	$V_{BE(on)}$	-	-	720	mV	
Collector Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	15	nA	
Current Gain Bandwidth Product 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	
Input Capacitance at $V_{EB} = 0.5\text{ V}$, $f = 1\text{ MHz}$	C_{ib}	-	9	-	pF	
Noise Figure at $I_C = 200\text{ }\mu\text{A}$, $V_{CE} = 5\text{ V}$, $R_G = 2\text{ K}\Omega$, $f = 1\text{ KHz}$ at $I_C = 200\text{ }\mu\text{A}$, $V_{CE} = 5\text{ V}$, $R_G = 2\text{ K}\Omega$, $f = 30\text{ } \sim 15\text{ KHz}$	BC846, BC847, BC848	NF	-	-	10	dB
	BC849, BC850	NF	-	-	4	dB
	BC849	NF	-	-	4	dB
	BC850	NF	-	-	3	dB



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Hong Kong Chuangji manufacturer](#):

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SB1204S-TL-E](#) [2SC5488A-TL-H](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-TL-E](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [MCH6102-TL-E](#) [BC846B-13-F](#) [2N3879](#) [30A02MH-TL-E](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANSR2N2907AUB](#) [CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#) [MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#) [2SD1815T-TL-E](#) [2N6678](#) [2N2907Ae4](#) [JAN2N3507](#)