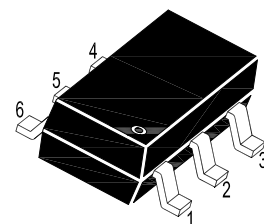
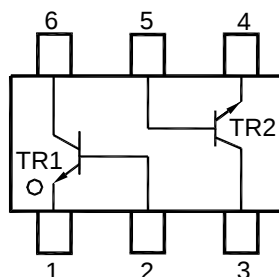


BC846DW...BC848DW

NPN Silicon Epitaxial Planar Transistor

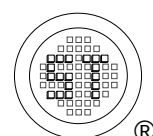
for general purpose and switching applications



1. Emitter 2. Base 3. Collector
4. Emitter 5. Base 6. Collector
SOT-363 Plastic Package

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

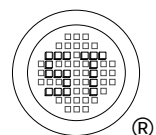
Parameter		Symbol	Value	Unit
Collector Base Voltage	BC846DW BC847DW BC848DW	V_{CBO}	80 50 30	V
Collector Emitter Voltage	BC846DW BC847DW BC848DW	V_{CEO}	65 45 30	V
Emitter Base Voltage	BC846DW BC847DW BC848DW	V_{EBO}	6 6 5	V
Collector Current		I_C	100	mA
Peak Collector Current		I_{CM}	200	mA
Total Power Dissipation		P_{tot}	250	mW
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	- 55 to + 150	$^\circ\text{C}$

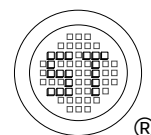
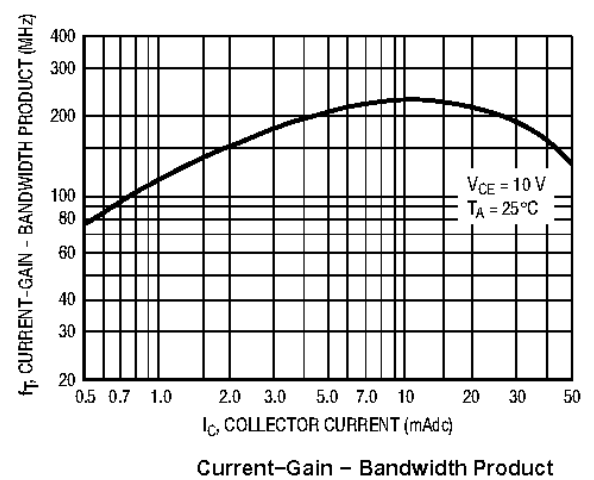
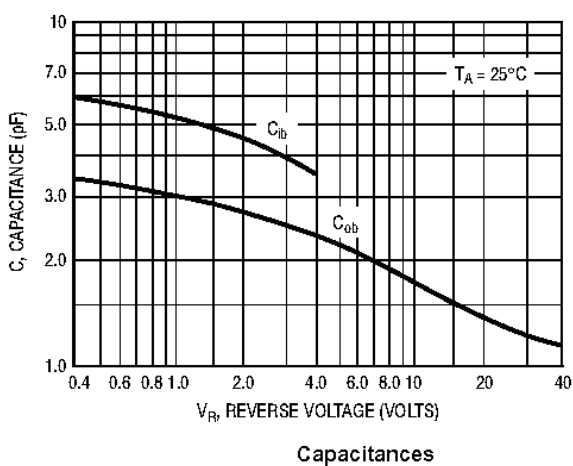
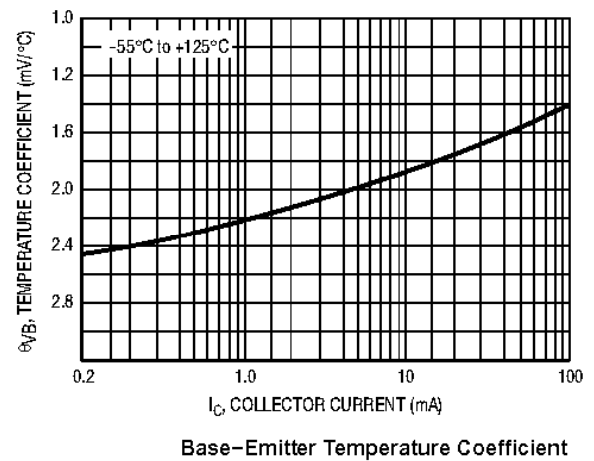
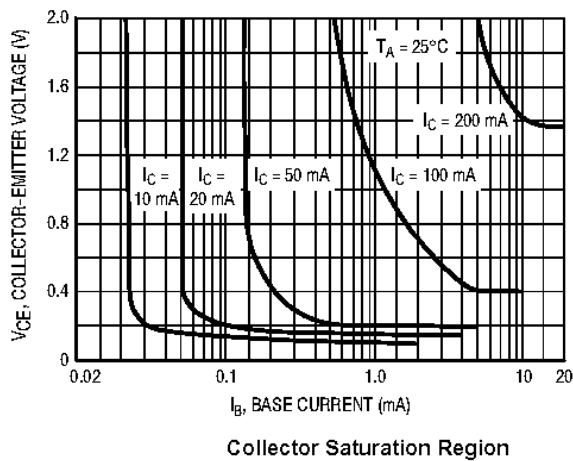
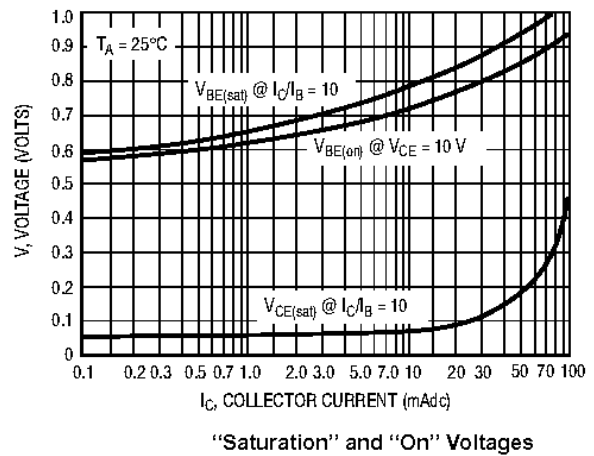
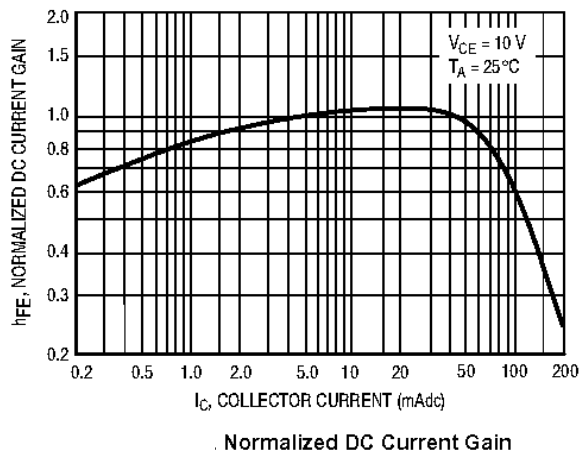


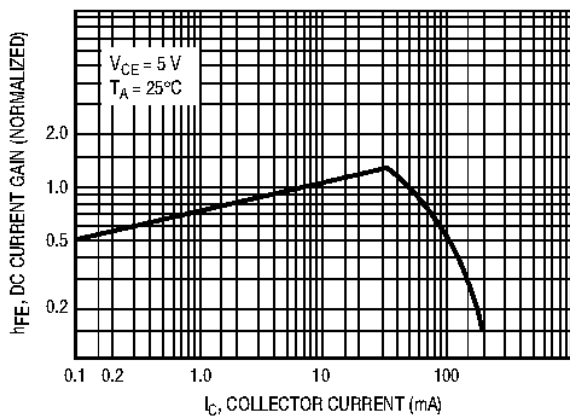
BC846DW...BC848DW

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

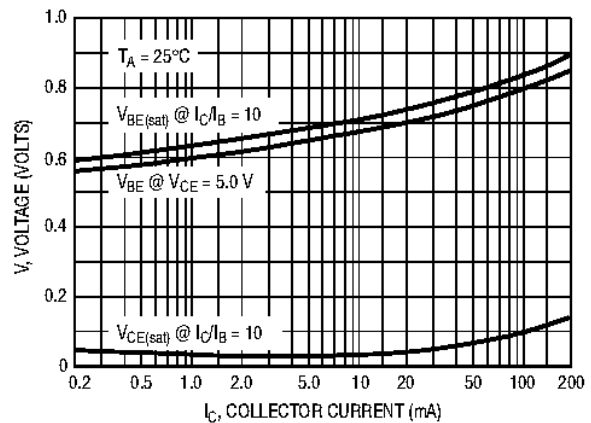
Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at V _{CE} = 5 V, I _C = 2 mA	BC846ADW~BC848ADW BC846BDW~BC848BDW BC846CDW~BC848CDW	h _{FE} h _{FE} h _{FE}	110 200 420	220 450 800	- - -
Collector Base Voltage at I _C = 10 μA	BC846DW BC847DW BC848DW	V _{CBO}	80 50 30	- - -	V
Collector Emitter Voltage at I _C = 10 mA	BC846DW BC847DW BC848DW	V _{CEO}	65 45 30	- - -	V
Emitter Base Voltage at I _E = 1 μA	BC846DW BC847DW BC848DW	V _{EBO}	6 6 5	- - -	V
Collector Base Cutoff Current at V _{CB} = 30 V		I _{CBO}	-	15	nA
Emitter Base Cutoff Current at V _{EB} = 5 V		I _{EBO}	-	100	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)}	- -	0.25 0.6	V
Base Emitter Voltage at V _{CE} = 5 V, I _C = 2 mA at V _{CE} = 5 V, I _C = 10 mA		V _{BE}	0.58 -	0.7 0.77	V
Transition Frequency at V _{CE} = 5 V, I _C = 10 mA, f = 100 MHz		f _T	100	-	MHz
Collector Output Capacitance at V _{CB} = 10 V, I _E = 0, f = 1 MHz		C _{ob}	-	4.5	pF







DC Current Gain



"On" Voltage

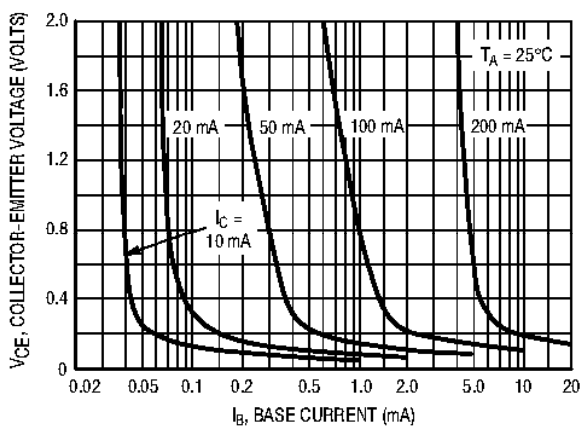


Figure 9. Collector Saturation Region

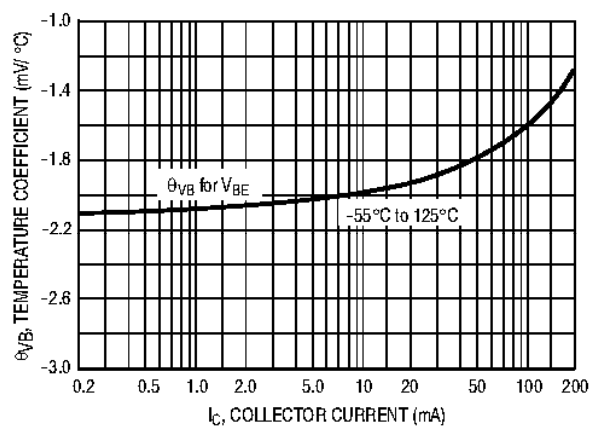


Figure 10. Base-Emitter Temperature Coefficient

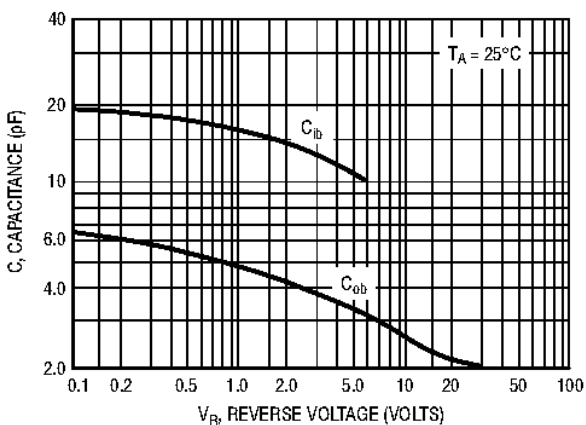


Figure 11. Capacitance

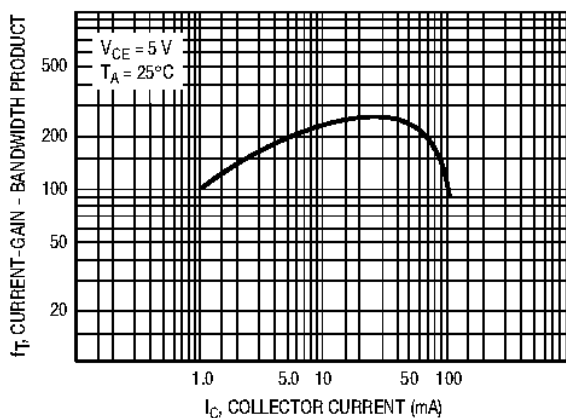


Figure 12. Current-Gain - Bandwidth Product

