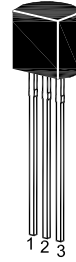


BC182...BC184

NPN Silicon Epitaxial Planar Transistor

for general purpose amplifier applications



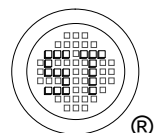
1. Collector 2. Base 3. Emitter
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	BC182 60	V
		BC183, BC184 45	
Collector Emitter Voltage	V_{CEO}	BC182 50	V
		BC183, BC184 30	
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_{C}	100	mA
Total Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain	h_{FE}	40	-	-
	h_{FE}	100	-	-
	h_{FE}	120	500	-
at $V_{\text{CE}} = 5\text{ V}$, $I_{\text{C}} = 2\text{ mA}$	h_{FE}	120	800	-
	h_{FE}	250	800	-
	h_{FE}	80	-	-
at $V_{\text{CE}} = 5\text{ V}$, $I_{\text{C}} = 100\text{ mA}$	h_{FE}	130	-	-
	h_{FE}	80	-	-
	h_{FE}	130	-	-
Collector Base Cutoff Current	I_{CBO}	-	15	nA
at $V_{\text{CB}} = 50\text{ V}$	I_{CBO}	-	15	nA
at $V_{\text{CB}} = 30\text{ V}$	I_{CBO}	-	15	nA
Emitter Base Cutoff Current	I_{EBO}	-	15	nA
at $V_{\text{EB}} = 4\text{ V}$	I_{EBO}	-	15	nA
Collector Base Breakdown Voltage	$V_{(\text{BR})\text{CBO}}$	60	-	V
at $I_{\text{C}} = 10\text{ }\mu\text{A}$	$V_{(\text{BR})\text{CBO}}$	45	-	V
Collector Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	50	-	V
at $I_{\text{C}} = 2\text{ mA}$	$V_{(\text{BR})\text{CEO}}$	30	-	V
Emitter Base Breakdown Voltage	$V_{(\text{BR})\text{EBO}}$	6	-	V
at $I_{\text{E}} = 100\text{ }\mu\text{A}$	$V_{(\text{BR})\text{EBO}}$	6	-	V



BC182...BC184

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
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 Saturation Voltage at I _C = 100 mA, I _B = 5 mA	V _{BE(sat)}	-	1.2	V
Base Emitter On Voltage at V _{CE} = 5 V, I _C = 2 mA	V _{BE(on)}	0.55	0.7	V
Current Gain Bandwidth Product at V _{CE} = 5 V, I _C = 10 mA, f = 100 MHz	f _T	150	-	MHz
Collector Base Capacitance at V _{CB} = 10 V, f = 1 MHz	C _{ob}	-	5	pF

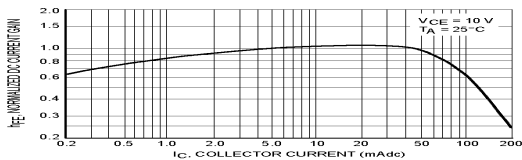


Figure 1. Normalized DC Current Gain

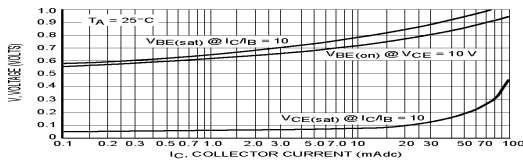


Figure 2. "Saturation" and "On" Voltages

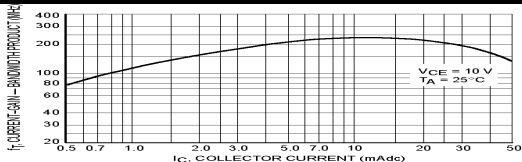


Figure 3. Current-Gain — Bandwidth Product

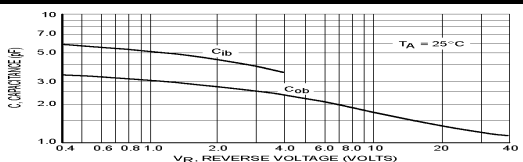


Figure 4. Capacitances

