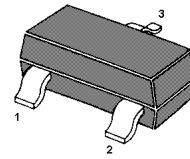


BC856...BC858

PNP Silicon General Purpose Transistors

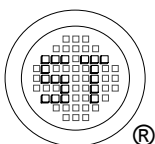
for switching and amplifier applications



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

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

Parameter	Symbol	BC856	BC857	BC858	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	80	50	30	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	65	45	30	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5			V
Collector Current	$-I_{\text{C}}$	100			mA
Peak Collector Current	$-I_{\text{CM}}$	200			mA
Total Device Dissipation	P_{tot}	200			mW
Thermal Resistance, Junction to Ambient	$R_{\theta\text{JA}}$	417			$^\circ\text{C}/\text{W}$
Junction and Storage Temperature	$T_{\text{J}}, T_{\text{S}}$	- 55 to + 150			$^\circ\text{C}$



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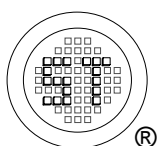


Dated : 21/06/2006

BC856...BC858

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

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	BC856A, BC857A, BC858A	h_{FE}	125	250	-
	BC856B, BC857B, BC858B	h_{FE}	220	475	-
	BC857C, BC858C	h_{FE}	420	800	-
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$		$-V_{CE(sat)}$	-	0.3	V
		$-V_{CE(sat)}$	-	0.65	V
Base Emitter On Voltage at $-I_C = 2\text{ mA}$, $-V_{CE} = 5\text{ V}$		$-V_{BE(on)}$	0.6	0.75	V
	at $-I_C = 10\text{ mA}$, $-V_{CE} = 5\text{ V}$	$-V_{BE(on)}$	-	0.82	V
Collector Cutoff Current at $-V_{CB} = 30\text{ V}$		$-I_{CBO}$	-	15	nA
	at $-V_{CB} = 30\text{ V}$, $T_A = 150\text{ }^{\circ}\text{C}$	$-I_{CBO}$	-	4	μA
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	BC856 Series	$-V_{(BR)CES}$	80	-	V
	BC857 Series	$-V_{(BR)CES}$	50	-	V
	BC858 Series	$-V_{(BR)CES}$	30	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	BC856 Series	$-V_{(BR)CEO}$	65	-	V
	BC857 Series	$-V_{(BR)CEO}$	45	-	V
	BC858 Series	$-V_{(BR)CEO}$	30	-	V
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	BC856 Series	$-V_{(BR)CBO}$	80	-	V
	BC857 Series	$-V_{(BR)CBO}$	50	-	V
	BC858 Series	$-V_{(BR)CBO}$	30	-	V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ }\mu\text{A}$	BC856 Series	$-V_{(BR)EBO}$	5	-	V
	BC857 Series	$-V_{(BR)EBO}$	5	-	V
	BC858 Series	$-V_{(BR)EBO}$	5	-	V
Current Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 100\text{ MHz}$		f_T	100	-	MHz
Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$		C_{ob}	-	4.5	pF
Noise Figure at $-I_C = 0.2\text{ mA}$, $-V_{CE} = 5\text{ V}$, $R_S = 2\text{ K}\Omega$, $f = 1\text{ KHz}$, $BW = 200\text{ Hz}$		NF	-	10	dB



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ISO/TS 16949 : 2002
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Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

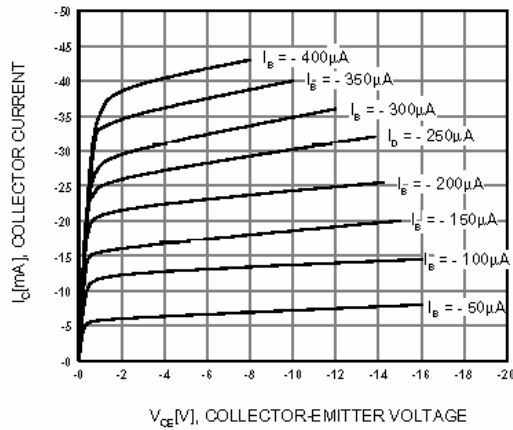


Figure 1. Static Characteristic

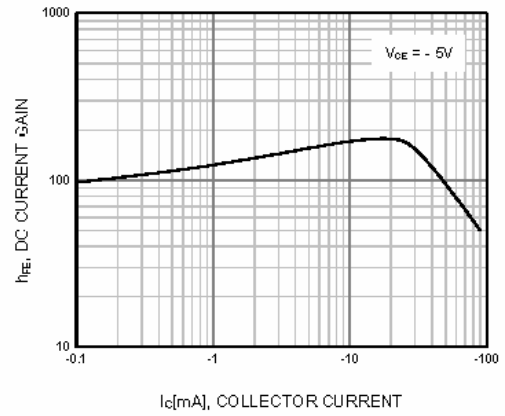


Figure 2. DC current Gain

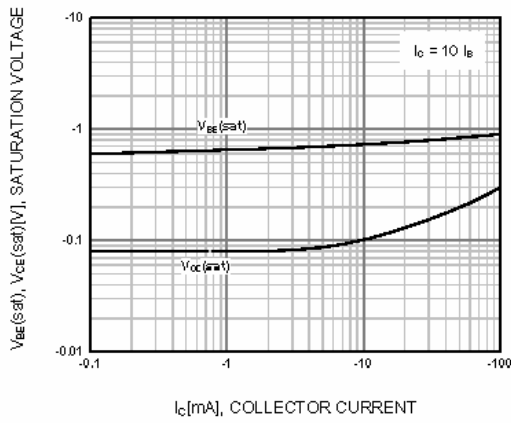


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

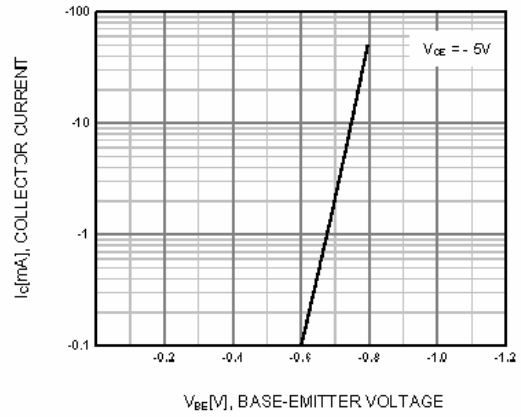


Figure 4. Base-Emitter On Voltage

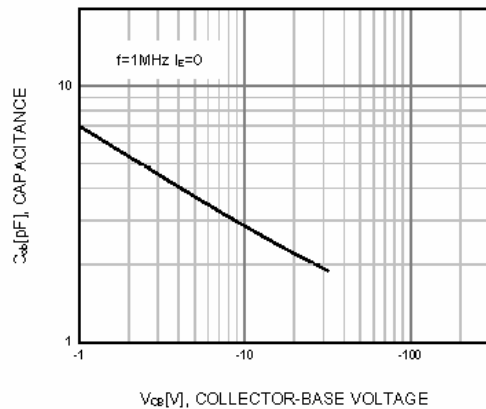


Figure 5. Collector Output Capacitance

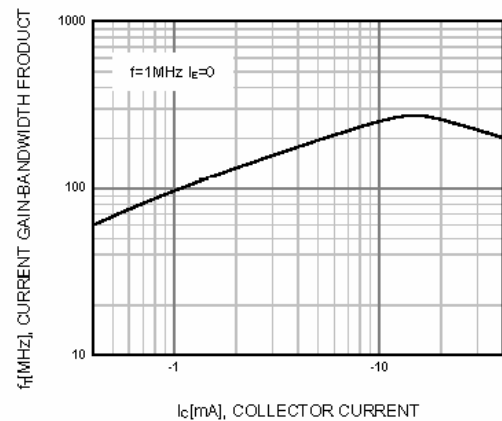
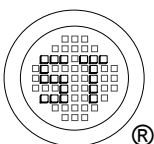
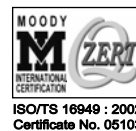


Figure 6. Current Gain Bandwidth Product



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