



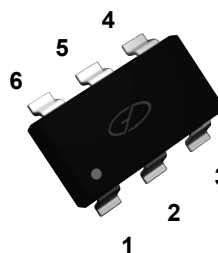
THE DATASHEET OF BC856S

BC856S

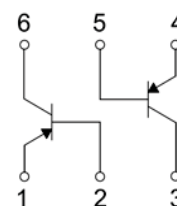
Dual PNP Transistor

Features

- Dual PNP transistors in one single package
- No mutual interference between the transistors



SOT-363



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-80	V
Collector-Emitter Voltage	V _{CEO}	-65	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-0.1	A
Collector Power Dissipation	P _C	0.2	W
Typical Thermal Resistance from Junction to Ambient	R _{θJA}	625	°C/W
Operating Junction Temperature Range	T _J	-55 To +150	°C
Storage Temperature Range	T _{STG}	-55 To +150	°C

Electrical Characteristics (T_A=25 °C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =-10uA, I _E =0	-80	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-65	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =-10uA, I _C =0	-5	-	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} =-30V, I _E =0	-	-	-15	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} =-5V, I _C =0	-	-	-15	nA
DC Current Gain	h _{FE}	V _{CE} =-5V, I _C =-2mA	110	-	-	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-10mA, I _B =-0.5mA	-	-	-0.1	V
		I _C =-100mA, I _B =-5mA ¹	-	-	-0.3	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-10mA, I _B =-0.5mA	-	-0.7	-	V
Output Capacitance	C _{obo}	V _{CB} =-10V, I _E =0 f=1MHz	-	-	2.5	pF
Transition Frequency	f _T	V _{CE} =-5V, I _C =-10mA, F=100MHz	100	-	-	MHz

Note:

1. pulse test: PW ≤ 350μs, δ ≤ 2%.

Typical Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

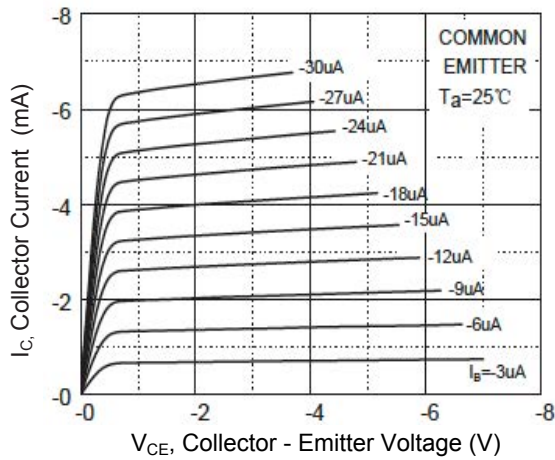


Figure 1. Static Characteristics

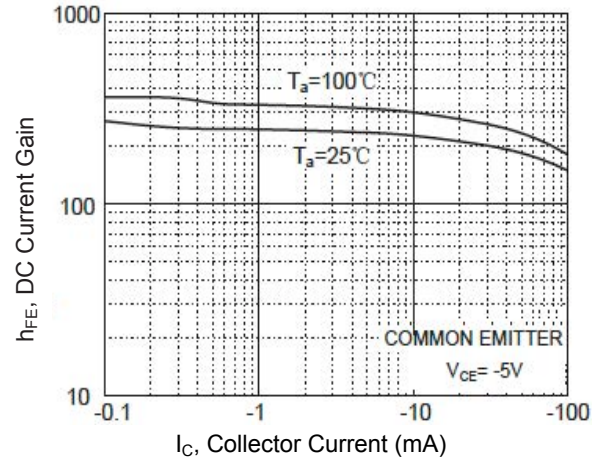


Figure 2. h_{FE} vs. I_C

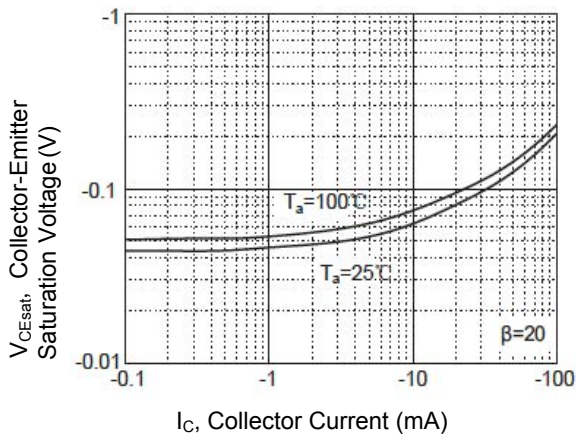


Figure 3. Collector - Emmitter Saturation Voltage vs. Collector Current

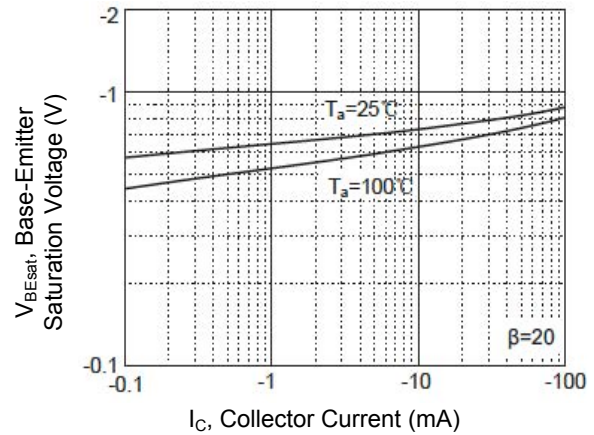


Figure 4. Base - Emmitter Saturation Voltage vs. Collector Current

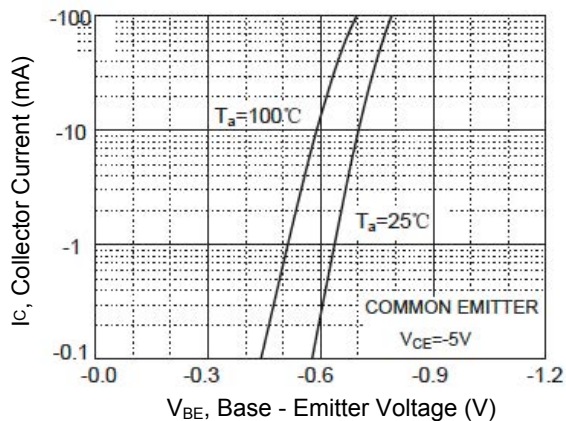


Figure 5. Collector Current vs. Base - Emmitter Voltage

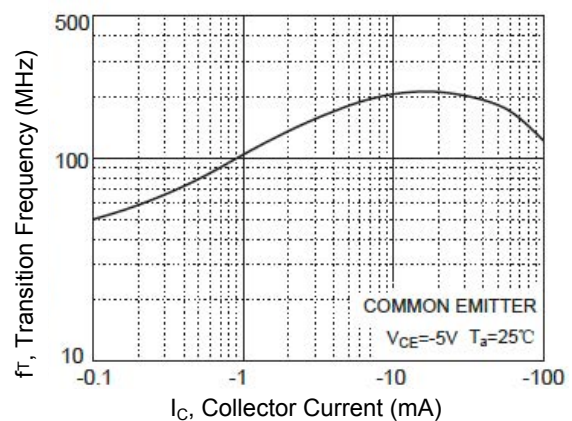


Figure 6. Transition Frequency vs. Collector Current

Typical Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

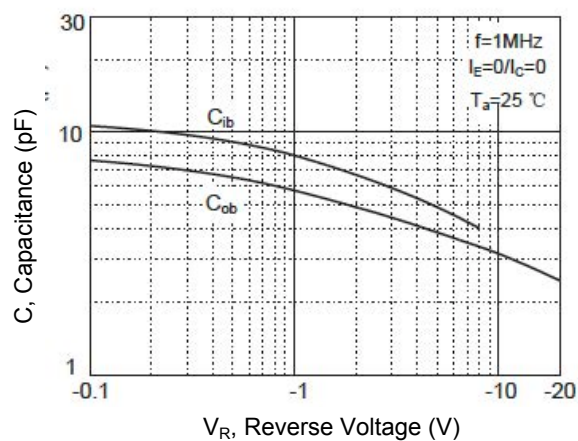


Figure 6. Capacitance Characteristics

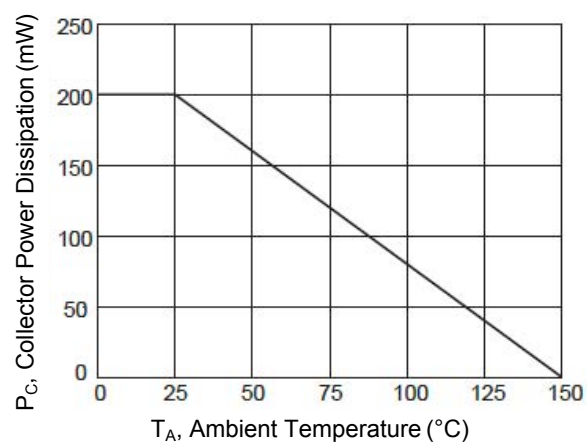
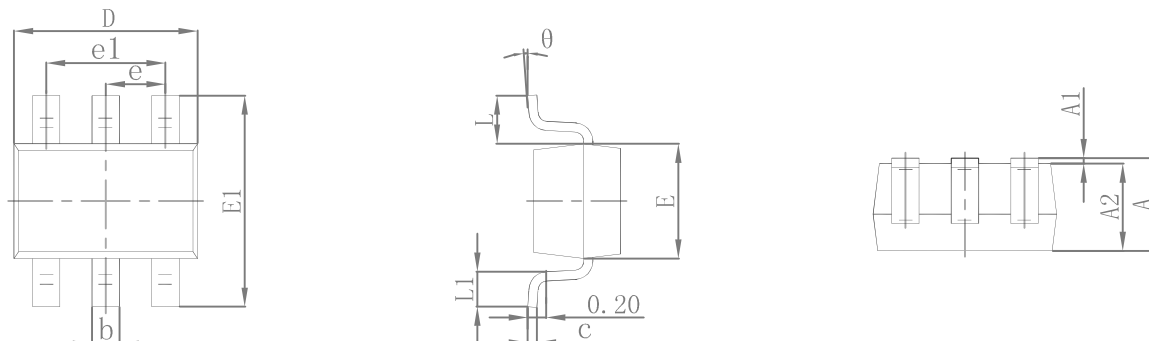


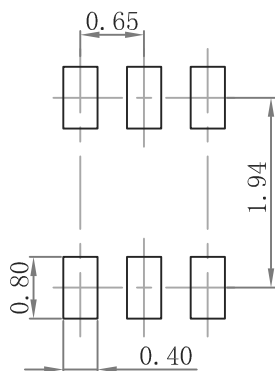
Figure 8. Power Dissipation vs Ambient Temperature

Package Outline Dimensions (SOT-363)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

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