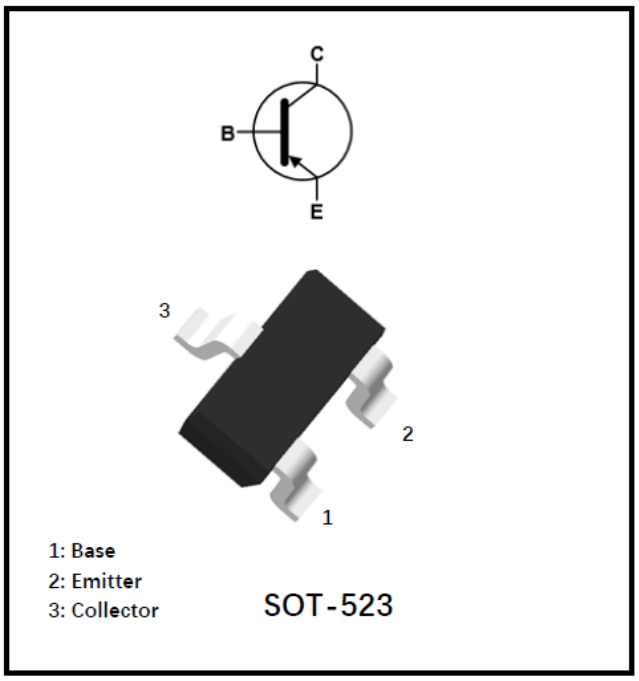
PNP Transistor



Features

- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- Halogen-free

Mechanical Data

- **Package**: SOT-523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**

BC856AT	3A
BC856BT	3B
BC857AT	3E
BC857BT	3F
BC857CT	3G
BC858AT	3J
BC858BT	3K
BC858CT	3L

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage BC856T BC857T BC858T	 -80 -50 -30	V
V_{CEO}	Collector-Emitter Voltage BC856T BC857T BC858T	 -65 -45 -30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-100	mA
P_C	Collector Power Dissipation	150	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	833	℃/W
Tj	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

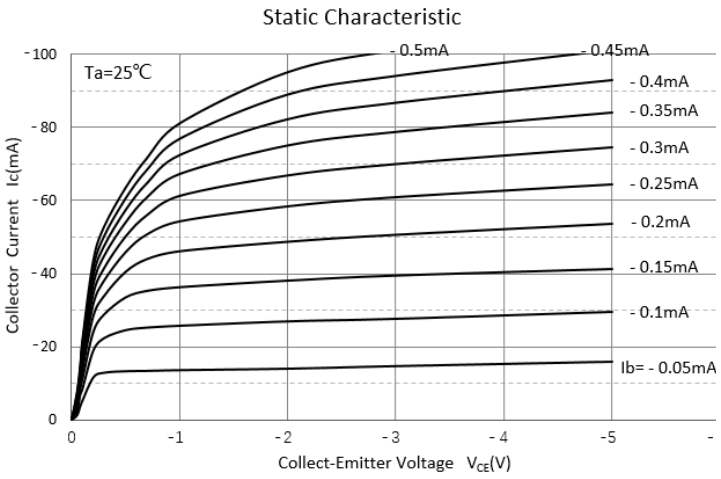
■Electrical Characteristics (Ta=25℃ unless otherwise specified)

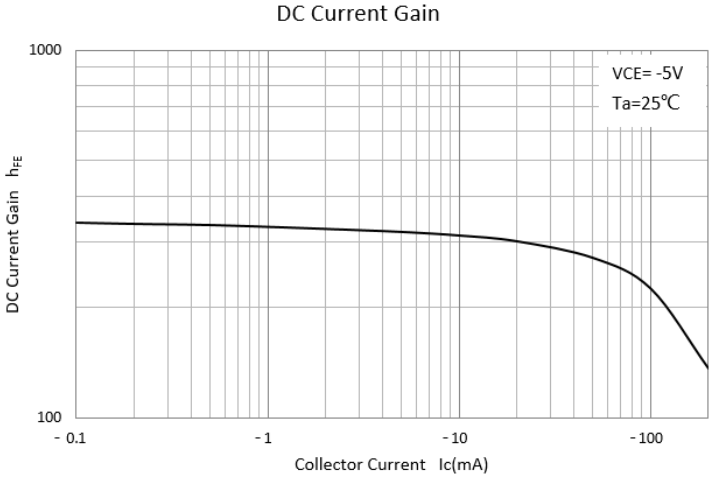
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856T BC857T BC858T	V_{CBO}	I_C=-10μA, I_E=0	 -80 -50 -30	-	V
Collector-emitter breakdown voltage BC856T BC857T BC858T	V_{CEO}	I_C=-10mA, I_B=0	 -65 -45 -30	-	V
Emitter-base breakdown voltage	V_{EBO}	I_E=-1μA, I_C=0	-5	-	V
Collector-base cut-off current	I_{CBO}	V_{CB}=-30 V ,I_E=0	-	-15	nA
Emitter-base cut-off current	I_{EBO}	V_{EB}=-5V , I_C=0	-	-100	nA
DC current gain BC856A,857A,858A BC856B,857B,858B BC857C,BC858C	h_{FE}	V_{CE}=-5V, I_C=-2mA	 125 220 420	 250 475 800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-10mA, I_B=-0.5mA	-	-0.3	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-5mA	-	-0.65	V
Base-Emitter Voltage	V_{BEON}	V_{CE}=-5V, I_C=-2mA	-0.6	-0.75	V
Base-Emitter Voltage	V_{BEON}	V_{CE}=-5V, I_C=-10mA	-	-0.82	V
Transition frequency	f_T	V_{CE}=-5V, I_C=-10mA f=100MHz	100	-	MHz

■ Ordering Information (Example)

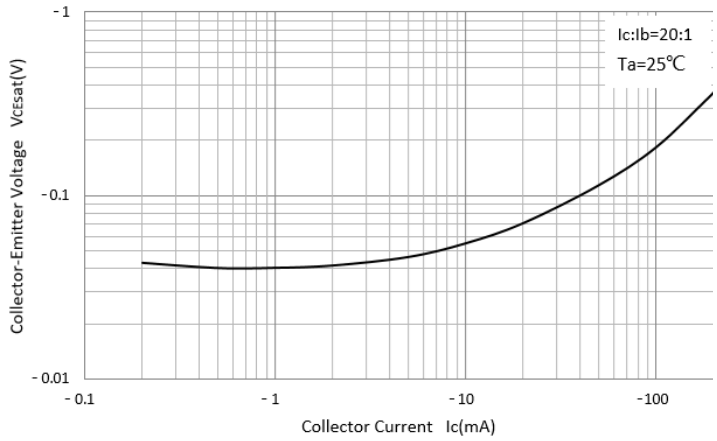
Prefered P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BC856T/BC857T/BC858T	F2	Approximate 0.0027	3000	30000	120000	7” reel

■ Characteristics (Typical)

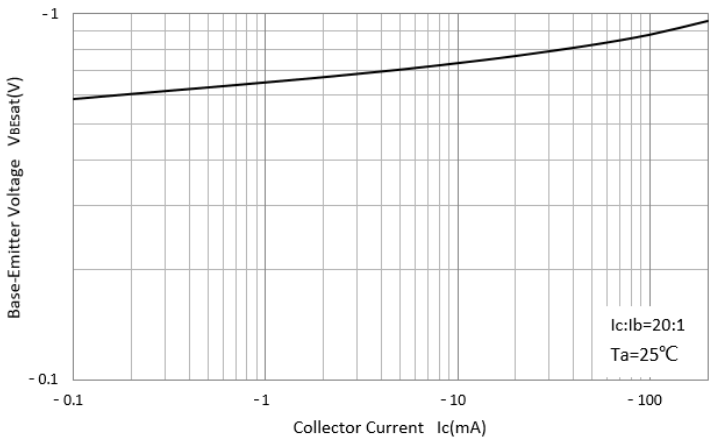




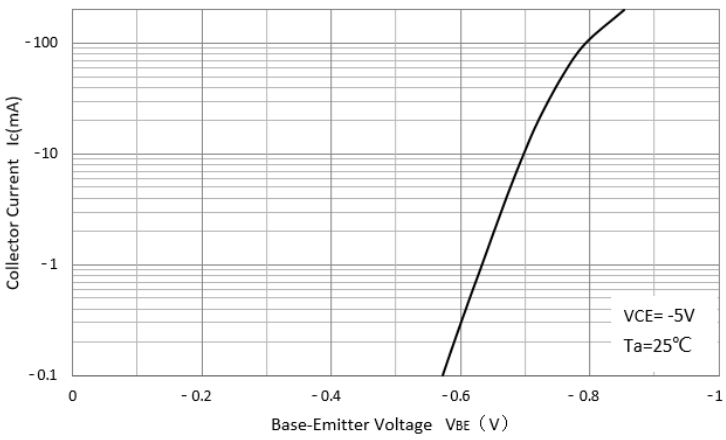
Collector-Emitter Saturation Voltage



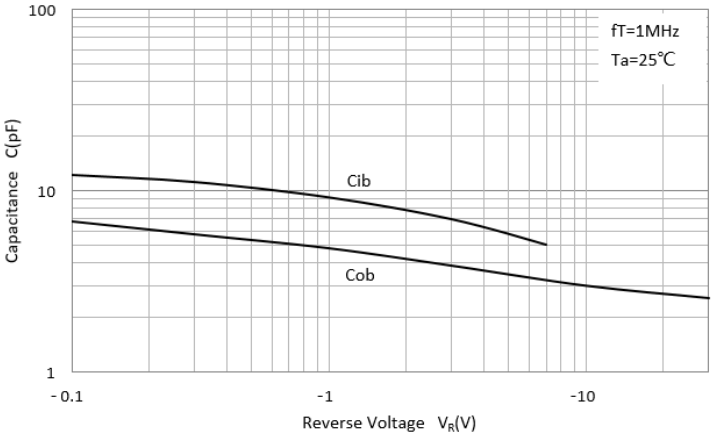
Base-Emitter Saturation Voltage



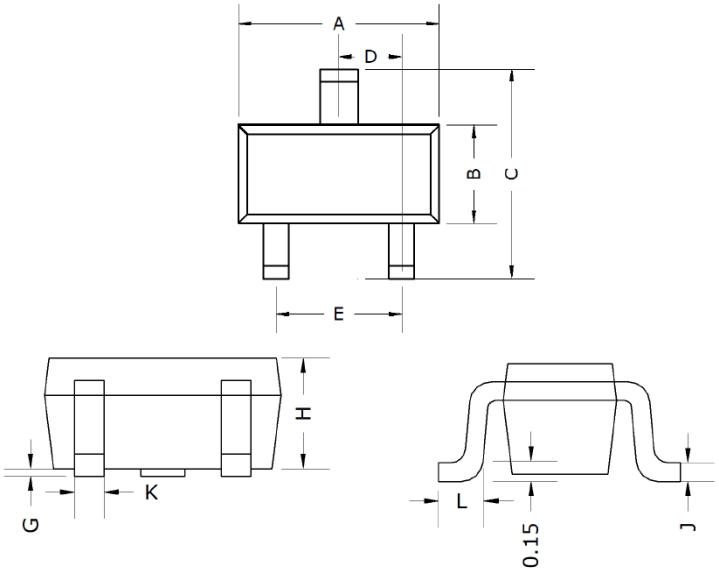
Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}

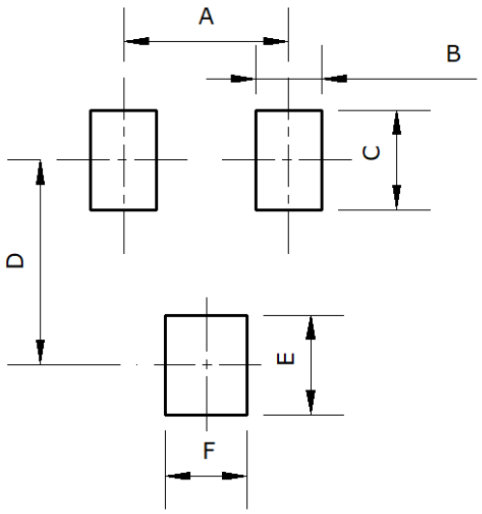


■ SOT-523 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.50	1.70
B	0.030	0.033	0.75	0.85
C	0.057	0.069	1.45	1.75
D	0.020TYP		0.50TYP	
E	0.035	0.043	0.90	1.10
G	0.000	0.004	0.00	0.10
H	0.024	0.031	0.60	0.80
J	0.004	0.008	0.10	0.20
K	0.006	0.014	0.15	0.35
L	0.010	0.018	0.26	0.46

■ SOT-523 Suggested Pad Layout



DIMENSIONS	
DIM	MM (TYP)
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50

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