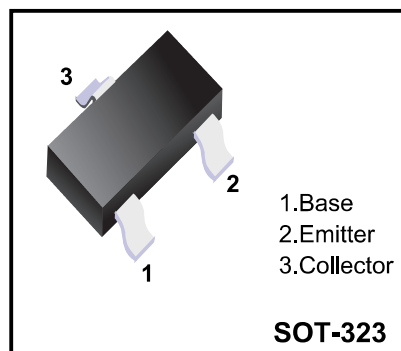


Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

- ♦ Ideally suited for automatic insertion
- ♦ For Switching and AF Amplifier Applications



Absolute Maximum Ratings (Ta = 25 °C)

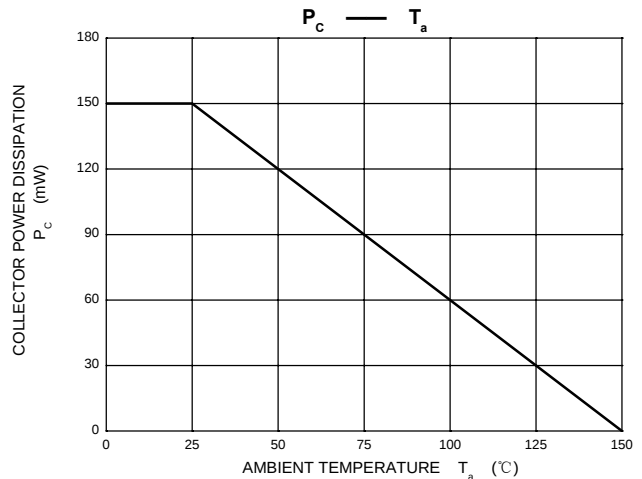
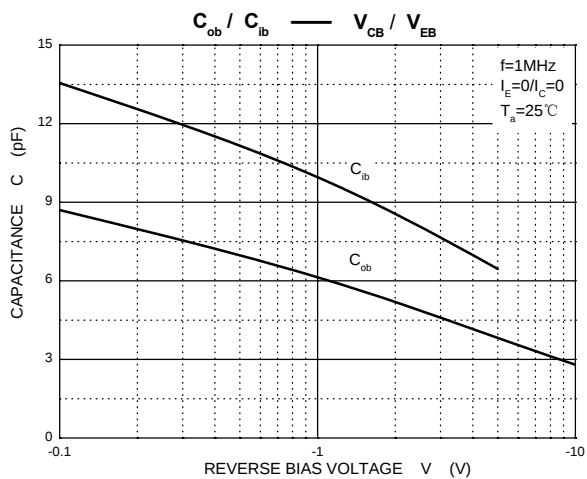
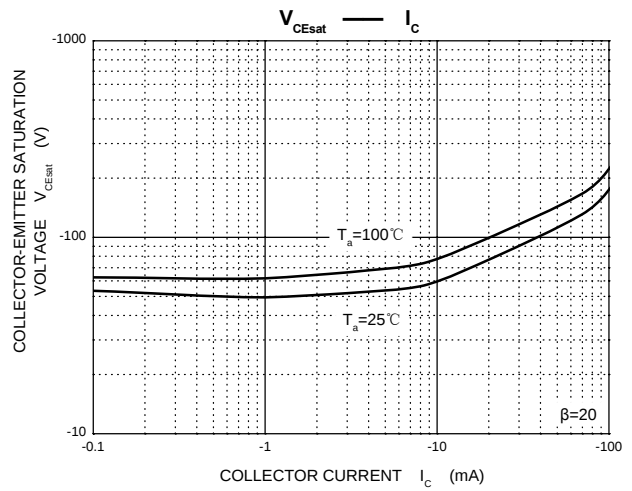
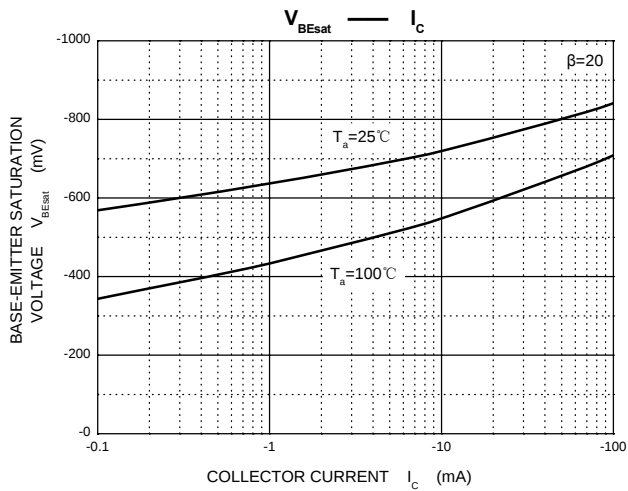
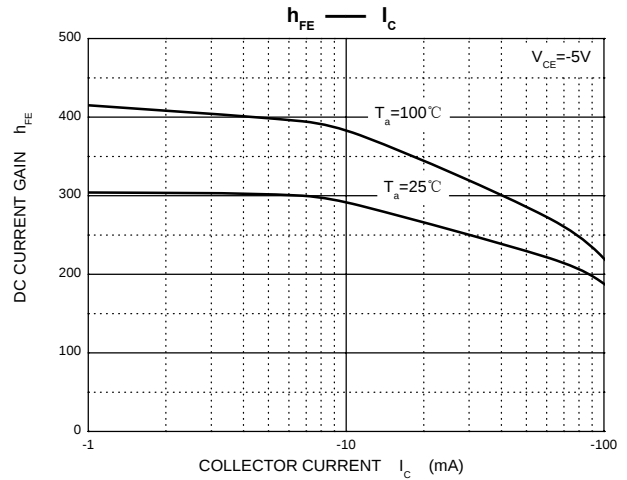
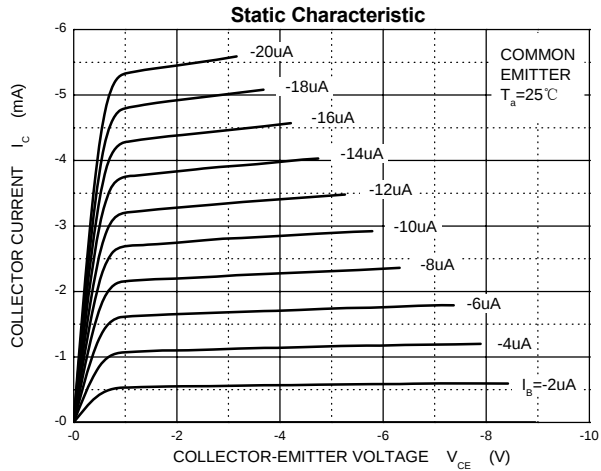
Parameter	Symbol	Value	Unit
Collector Base Voltage	BC856W $-V_{CBO}$	80	V
	BC857W, BC860W $-V_{CBO}$	50	V
	BC858W, BC859W $-V_{CBO}$	30	V
Collector Emitter Voltage	BC856W $-V_{CEO}$	65	V
	BC857W, BC860W $-V_{CEO}$	45	V
	BC858W, BC859W $-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	200	mA
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

MARKING CODE

TYPE	BC856AW	BC856BW	BC856CW	BC857AW	BC857BW	BC857CW	BC858AW	BC858BW	BC858CW
MARKING	3A	3B	3C	3E	3F	3G	3J	3K	3L
TYPE	BC859AW	BC859BW	BC859CW	BC860AW	BC860BW	BC860CW			
MARKING	4A	4B	4C	4E	4F	4G			

Characteristics at Ta = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ Current Gain Group A B C	h_{FE} h_{FE} h_{FE}	110 200 420	220 450 800	- - -
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	15	nA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ BC856W BC857W, BC860W BC858W, BC859W	$-V_{(BR)CBO}$ $-V_{(BR)CBO}$ $-V_{(BR)CBO}$	80 50 30	- - -	V V V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ BC856W BC857W, BC860W BC858W, BC859W	$-V_{(BR)CES}$ $-V_{(BR)CES}$ $-V_{(BR)CES}$	80 50 30	- - -	V V V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$ BC856W BC857W, BC860W BC858W, BC859W	$-V_{(BR)CEO}$ $-V_{(BR)CEO}$ $-V_{(BR)CEO}$	65 45 30	- - -	V V V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$ at $-I_C = 100\text{ mA}$, $-I_B = 5\text{ mA}$	$-V_{CE(sat)}$ $-V_{CE(sat)}$	- -	0.3 0.65	V V
Base Emitter On Voltage at $-I_C = 2\text{ mA}$, $-V_{CE} = 5\text{ V}$ at $-I_C = 10\text{ mA}$, $-V_{CE} = 5\text{ V}$	$-V_{BE(on)}$ $-V_{BE(on)}$	- -	0.75 0.82	V 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}	-	6	pF



Ordering information

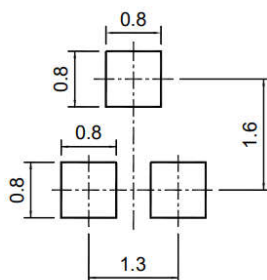
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



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