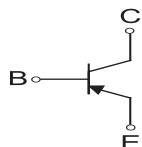
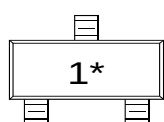


SOT-323 Plastic-Encapsulate Transistors**BC856W/BC857W/BC858W**

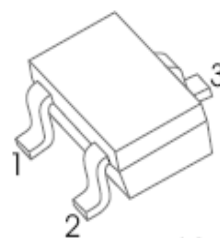
TRANSISTOR (PNP)

FEATURES

- Ideally suited for automatic insertion
- For switching and AF amplifier applications

MARKING**Equivalent Circuit**

HFE	110 - 220	200 - 450	420 - 800
BC856	3A	3B	
BC857	3E	3F	3G
BC858	3J	3K	3L

SOT - 323

1. BASE
2. EMITTER
3. COLLECTOR

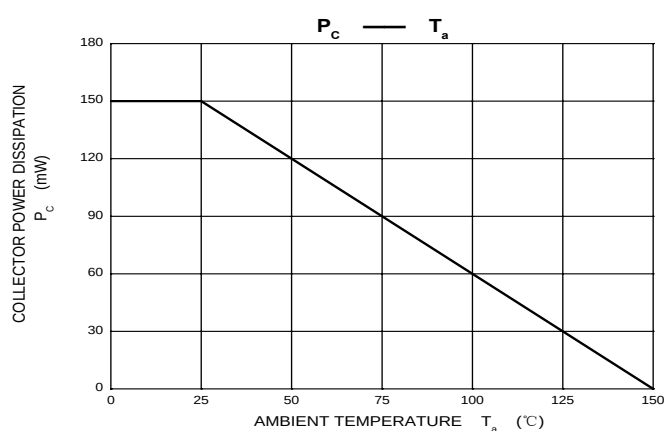
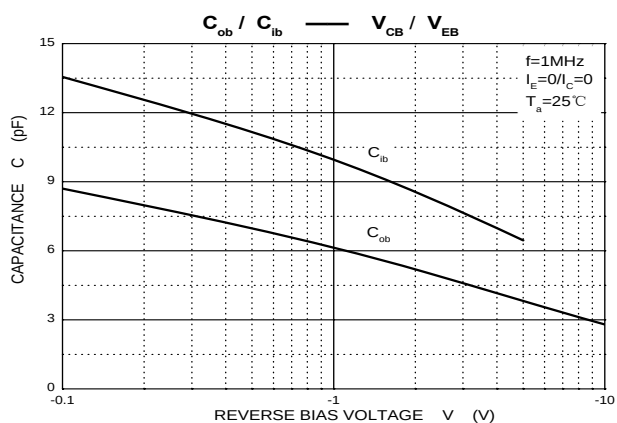
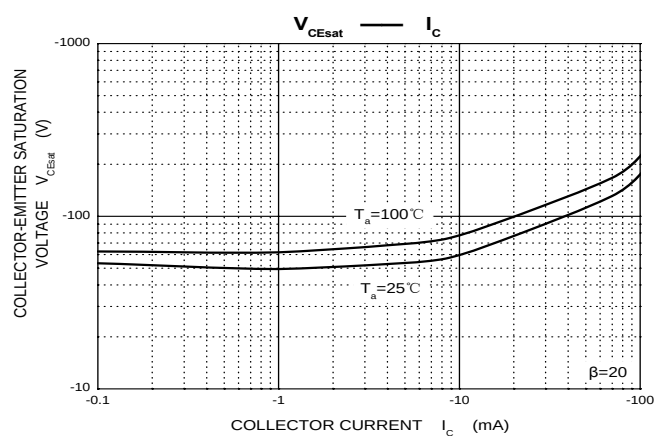
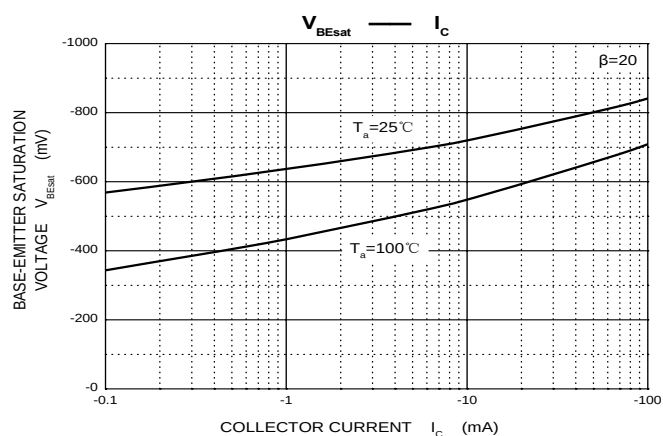
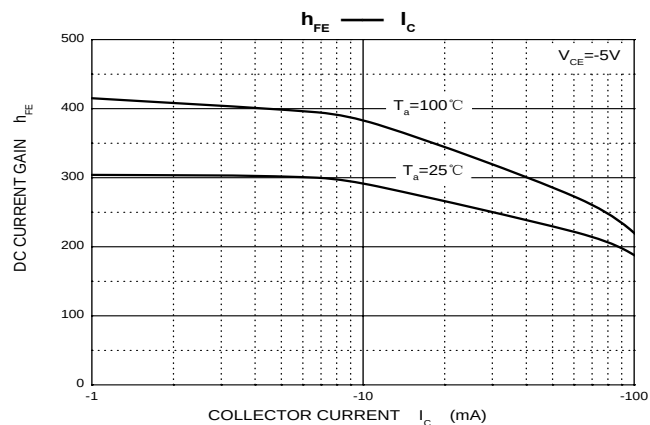
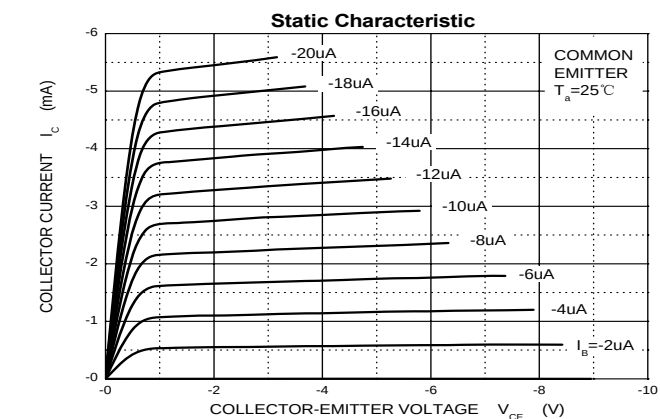
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage BC856W BC857W BC858W	-80	V
		-50	
		-30	
V_{CEO}	Collector-Emitter Voltage BC856W BC857W BC858W	-65	V
		-45	
		-30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-0.1	A
P_C^*	Collector Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	833	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

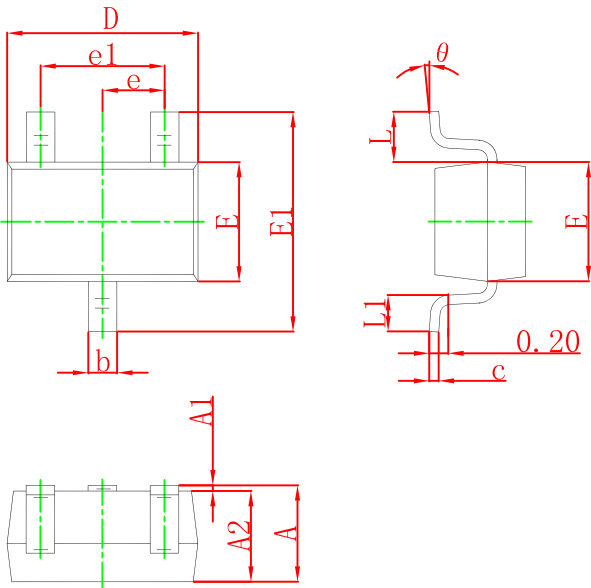
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856W BC857W BC858W	V_{CBO}	$I_C = -10\mu\text{A}, I_E = 0$	-80		V
			-50		
			-30		
Collector-emitter breakdown voltage BC856W BC857W BC858W	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-65		V
			-45		
			-30		
Emitter-base breakdown voltage	V_{EBO}	$I_E = -1\mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$		-15	nA
DC current gain BC856AW, 857AW, 858AW BC856BW, 857BW, 858BW BC857CW, BC858CW	h_{FE}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	125	250	
			220	475	
			420	800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -5\text{mA}$		-0.65	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}, I_B = -5\text{mA}$		-1.1	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	100		MHz
Collector capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		4.5	pF

Typical Characteristics

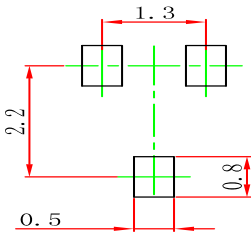


Package Outline Dimensions (SOT-323)



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	0.200	0.400	0.008	0.016
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		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout (SOT-323)



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.