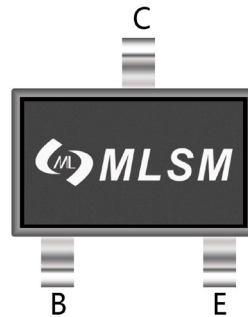
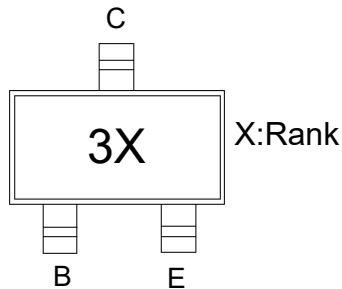
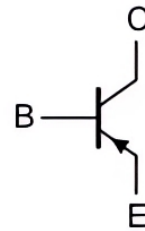


Features

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



SOT-23 top view



Schematic diagram



Pb-Free



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	BC856W	BC857W	BC858W	Unit
V _{CBO}	Collector-Base Voltage	-80	-50	-30	V
V _{CEO}	Collector-Emitter Voltage	-65	-45	-30	V
V _{EBO}	Emitter-Base Voltage	-5			V
I _C	Collector Current	-0.1			A
P _C	Collector Power Dissipation	150			mW
R _{ΘJA}	Thermal Resistance From Junction To Ambient	833			°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

Ordering Information (Example)

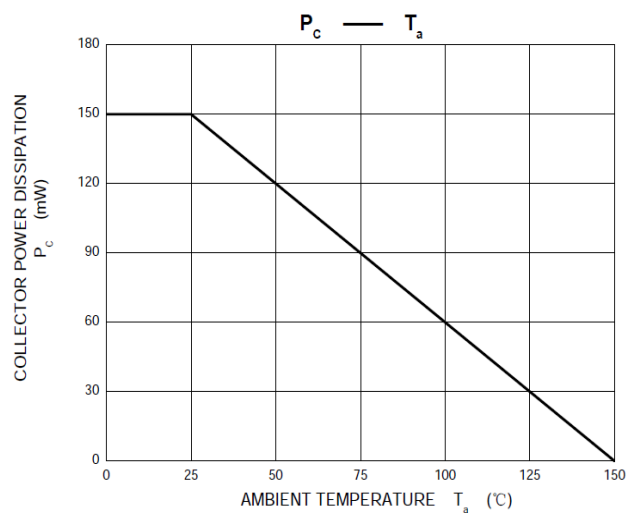
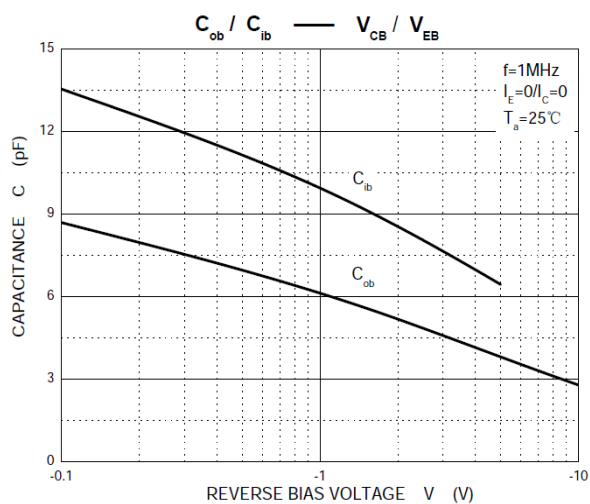
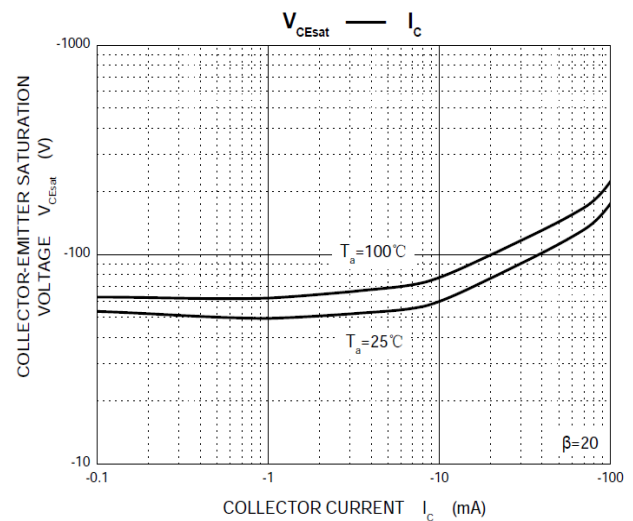
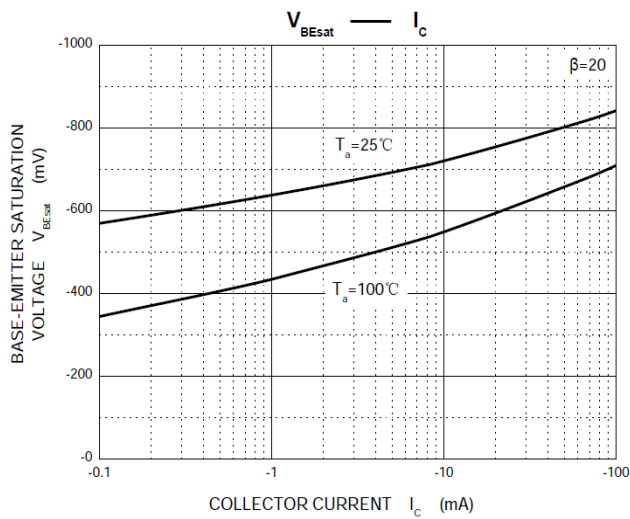
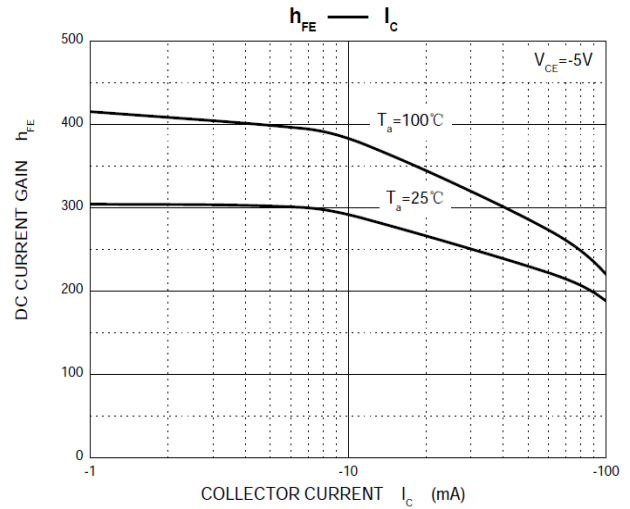
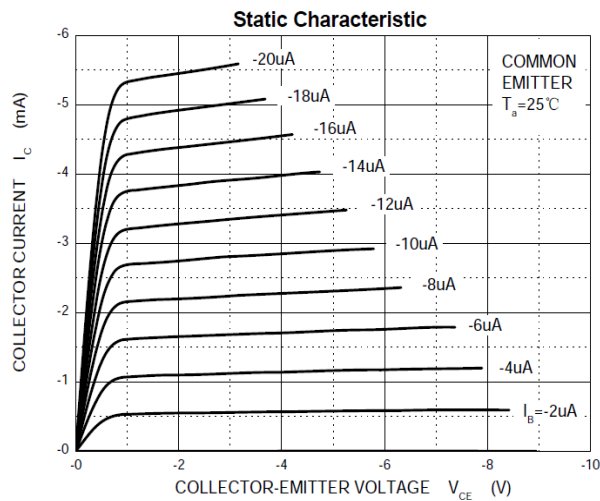
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BC856AW	SOT-323	3A	3,000	45,000	180,000	7"reel
BC856BW	SOT-323	3B	3,000	45,000	180,000	7"reel
BC857AW	SOT-323	3E	3,000	45,000	180,000	7"reel
BC857BW	SOT-323	3F	3,000	45,000	180,000	7"reel
BC857CW	SOT-323	3G	3,000	45,000	180,000	7"reel
BC858AW	SOT-323	3J	3,000	45,000	180,000	7"reel
BC858BW	SOT-323	3K	3,000	45,000	180,000	7"reel
BC858CW	SOT-323	3L	3,000	45,000	180,000	7"reel



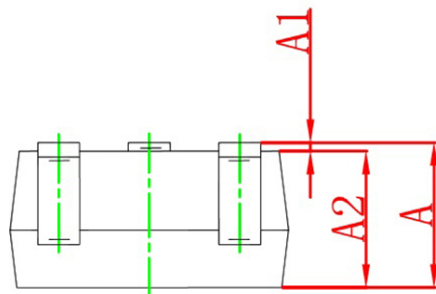
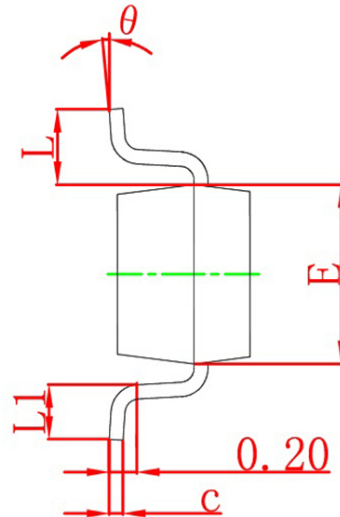
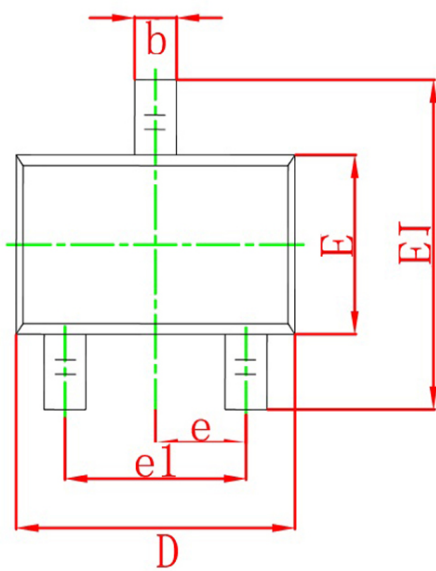
Electrical Characteristics (Ta=25°C unless otherwise specified)

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

Typical Operating Characteristics



SOT-323 Package information



Symbol	Dimensions in Millimeters(mm)		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	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°