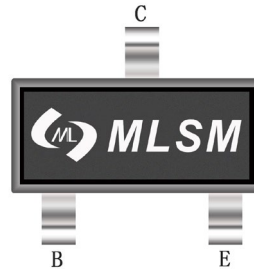
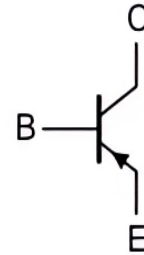


Features

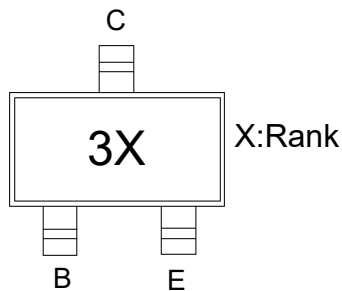
- Ideally suited for automatic insertion
- For switching and AF amplifier applications



SOT-23 top view



Schematic diagram



Marking and pin assignment



Pb-Free



Halogen-Free

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

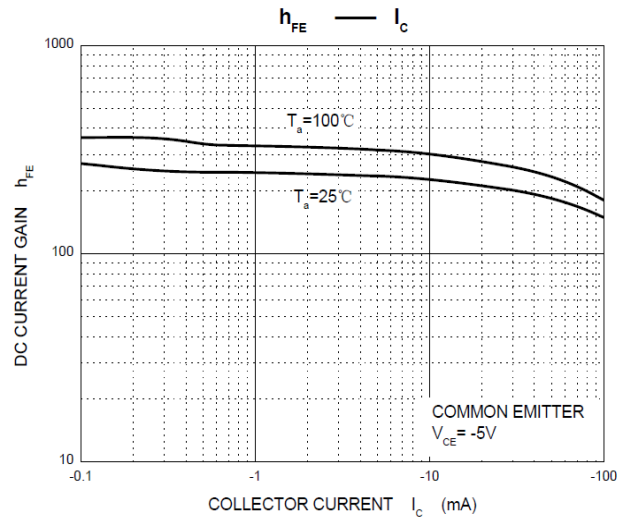
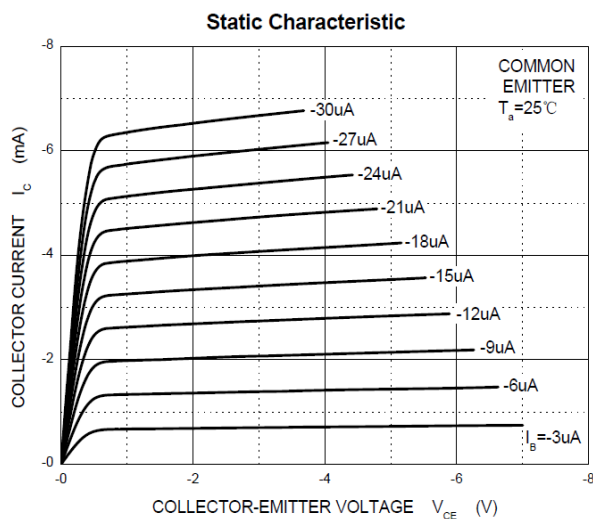
Symbol	Parameter	BC856	BC857	BC858	Unit
V_{CBO}	Collector-Base Voltage	-80	-50	-30	V
V_{CEO}	Collector-Emitter Voltage	-65	-45	-30	V
V_{EBO}	Emitter-Base Voltage	-5			V
I_C	Collector Current	-0.1			A
P_C	Collector Power Dissipation	200			mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625			°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

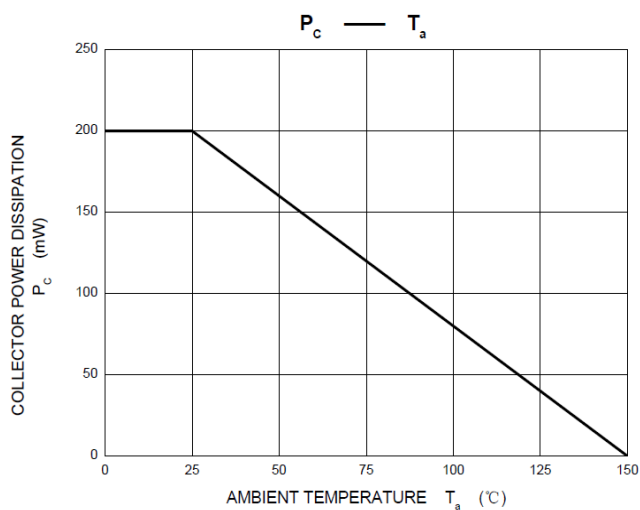
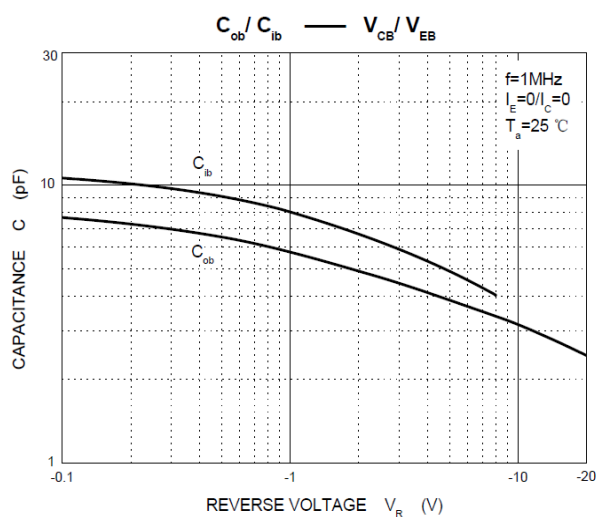
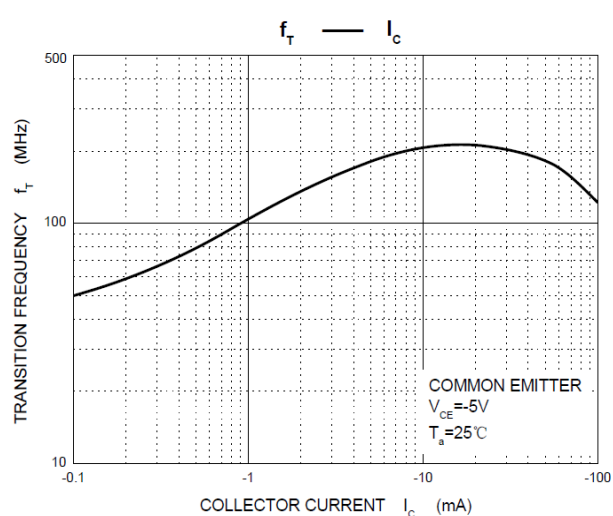
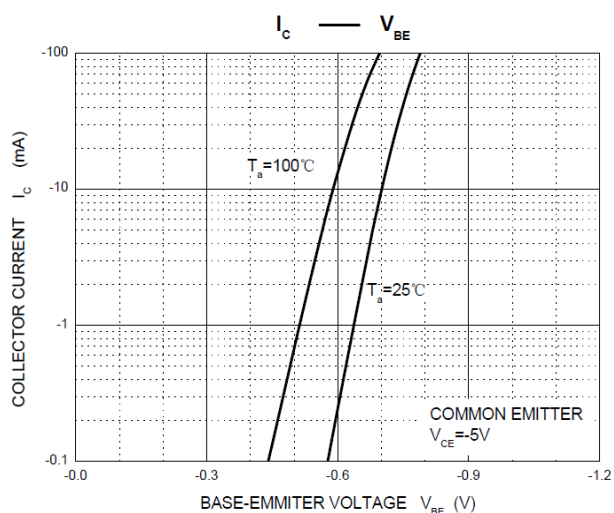
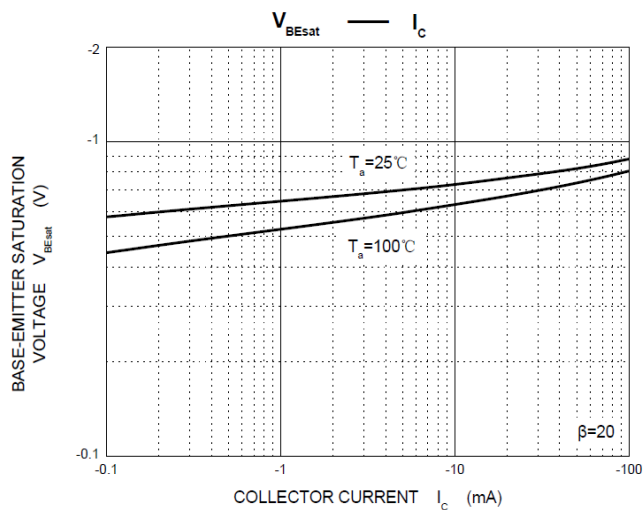
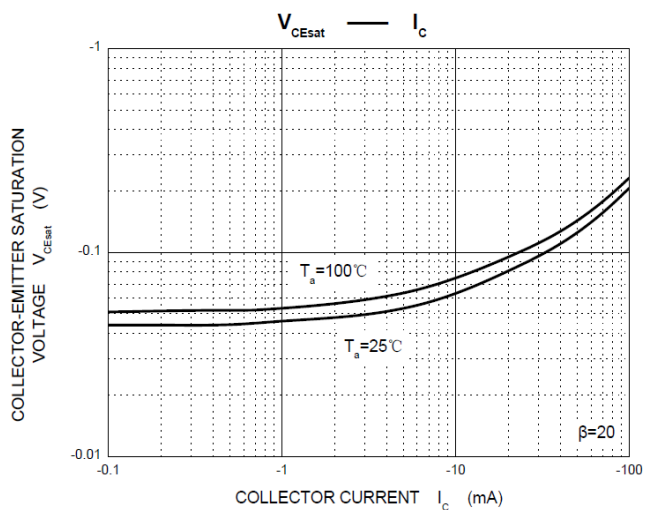
Ordering Information (Example)

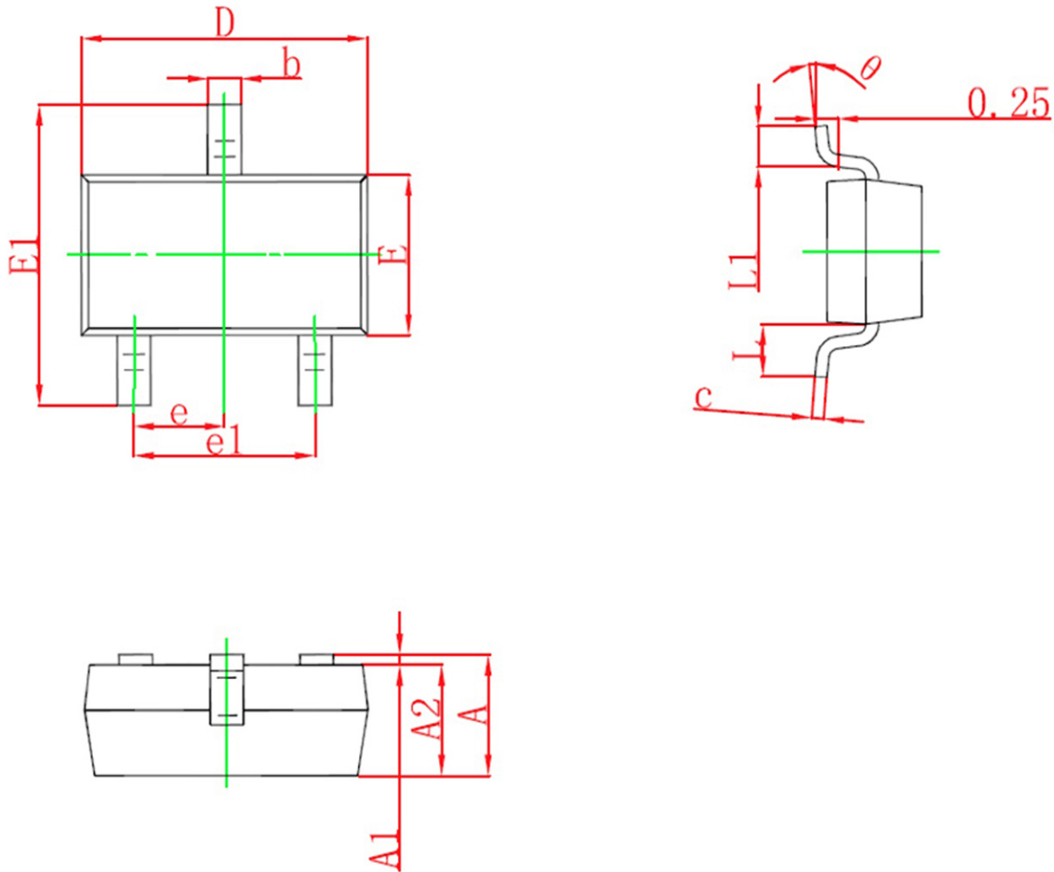
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BC856A	SOT-23	3A	3,000	45,000	180,000	7" reel
BC856B	SOT-23	3B	3,000	45,000	180,000	7" reel
BC857A	SOT-23	3E	3,000	45,000	180,000	7" reel
BC857B	SOT-23	3F	3,000	45,000	180,000	7" reel
BC857C	SOT-23	3G	3,000	45,000	180,000	7" reel
BC858A	SOT-23	3J	3,000	45,000	180,000	7" reel
BC858B	SOT-23	3K	3,000	45,000	180,000	7" reel
BC858C	SOT-23	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	BC856	$I_C = -10\mu A, I_E = 0$	-80	--	--	V
		BC857		-50	--	--	
		BC858		-30	--	--	
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BC856	$I_C = -10mA, I_B = 0$	-65	--	--	V
		BC857		-45	--	--	
		BC858		-30	--	--	
$V_{(BR)EBO}$	Emitter-base breakdown voltage		$I_E = -1\mu A, I_C = 0$	-5	--	--	V
I_{CBO}	Collector cut-off current	BC856	$V_{CB} = -70V, I_E = 0$	--	--	-0.1	μA
		BC857	$V_{CB} = -45V, I_E = 0$				
		BC858	$V_{CB} = -25V, I_E = 0$				
I_{EBO}	Emitter cut-off current		$V_{EB} = -5V, I_C = 0$	--	--	-0.1	μA
H_{FE}	DC current gain	BC856A, 857A, 858A	$V_{CE} = -5V, I_C = -2mA$	125	250	--	
		BC856B, 857B, 858B		220	475	--	
		BC857C, BC858C		420	800	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage		$I_C = -100mA, I_B = -5mA$	--	--	-0.5	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-23 Package information


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°