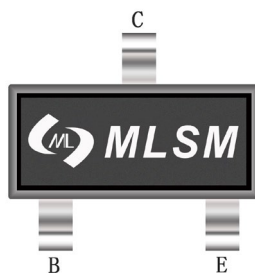
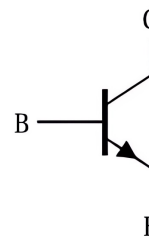


Features

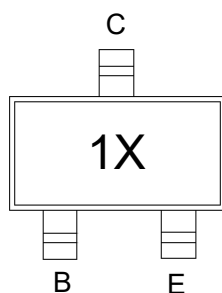
- Ideally suited for automatic insertion
- For switching and AF amplifier applications



SOT-23 top view



Schematic diagram



Marking and pin assignment

X:Rank



Pb-Free



Halogen-Free

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

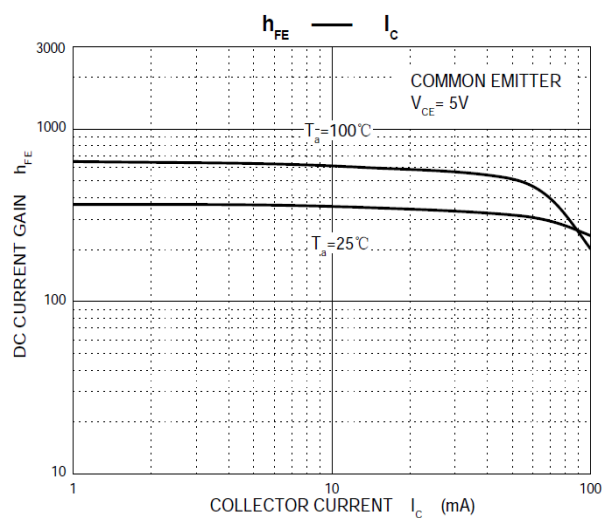
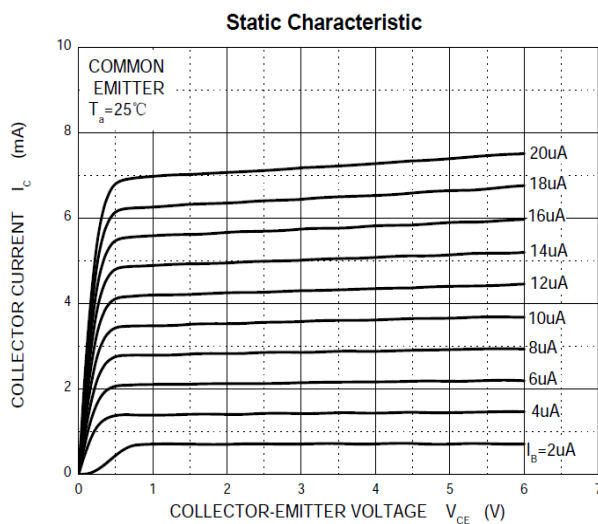
Symbol	Parameter	BC846	BC847	BC848	Unit
V_{CBO}	Collector-Base Voltage	80	50	30	V
V_{CEO}	Collector-Emitter Voltage	65	45	30	V
V_{EBO}	Emitter-Base Voltage	6			V
I_C	Collector Current	0.1			A
P_C	Collector Power Dissipation	200			mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625			°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

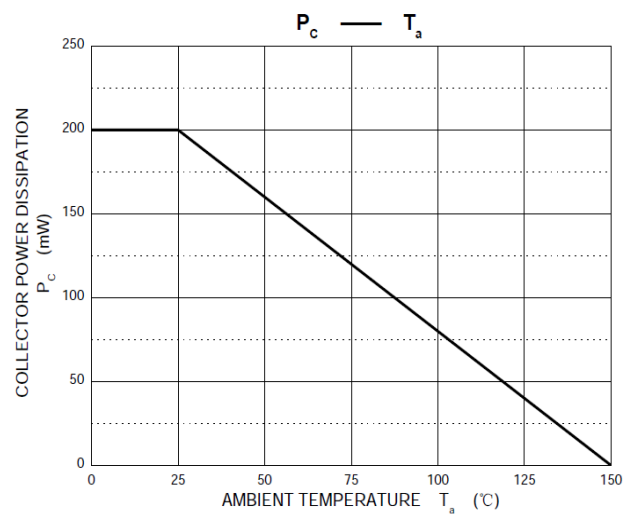
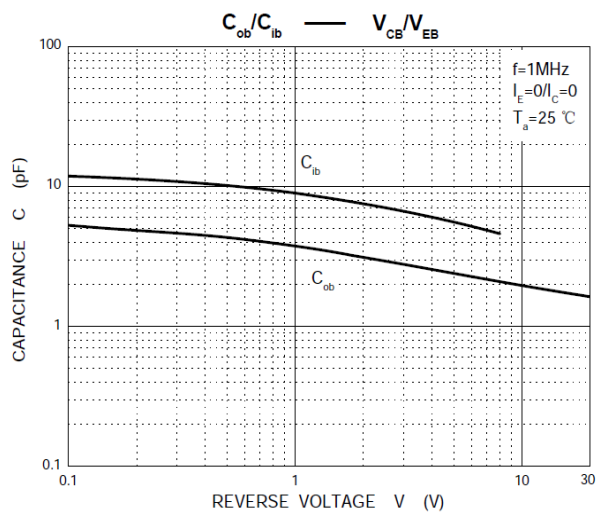
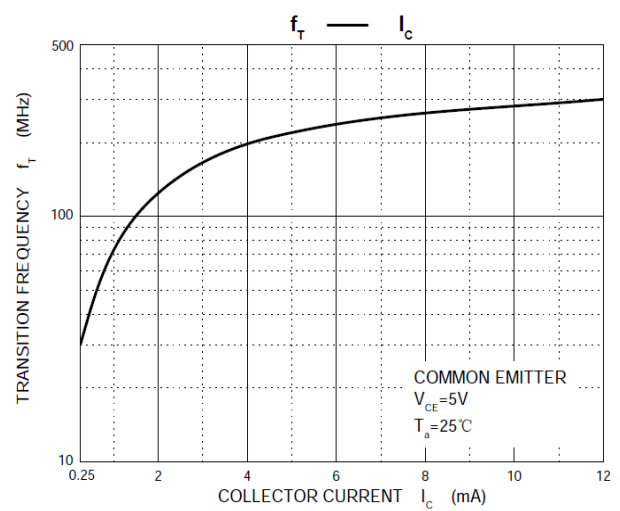
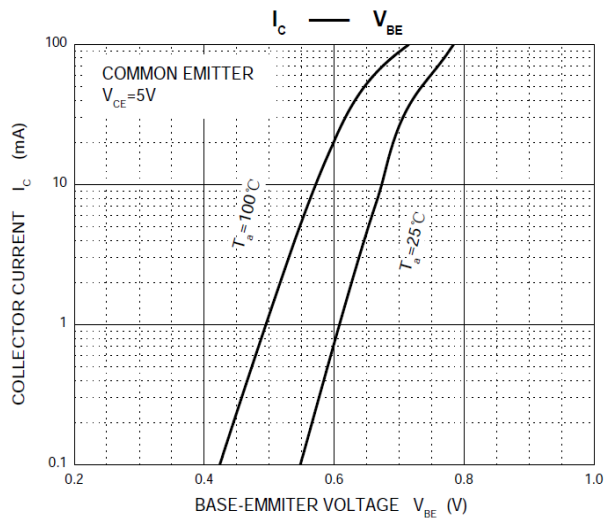
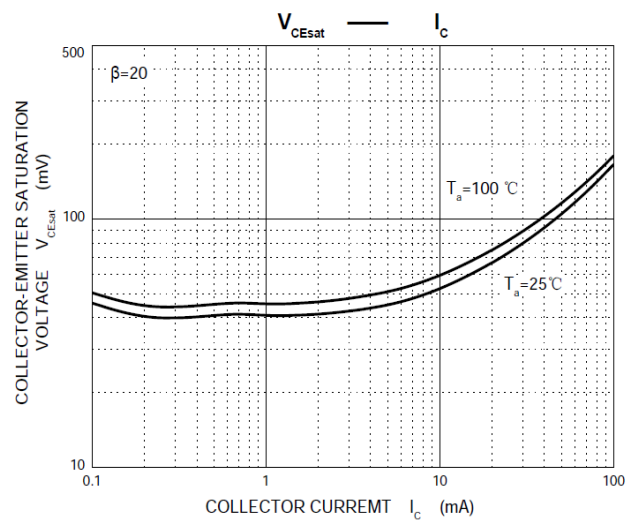
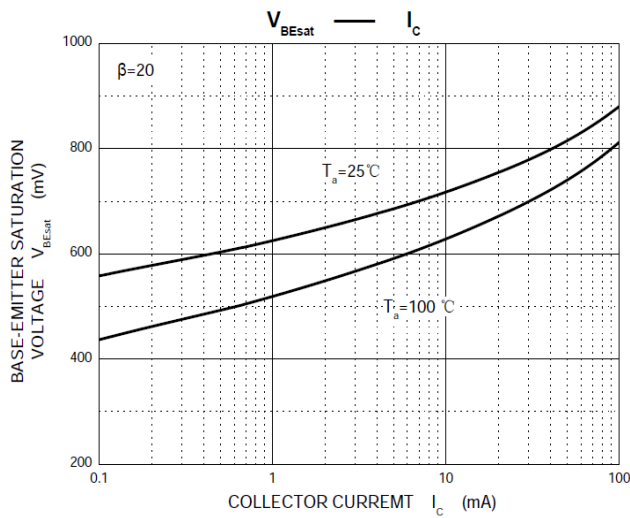
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BC846A	SOT-23	1A	3000	45000	180000	7"reel
BC846B	SOT-23	1B	3000	45000	180000	7"reel
BC847A	SOT-23	1E	3000	45000	180000	7"reel
BC847B	SOT-23	1F	3000	45000	180000	7"reel
BC847C	SOT-23	1G	3000	45000	180000	7"reel
BC848A	SOT-23	1J	3000	45000	180000	7"reel
BC848B	SOT-23	1K	3000	45000	180000	7"reel
BC848C	SOT-23	1L	3000	45000	180000	7"reel

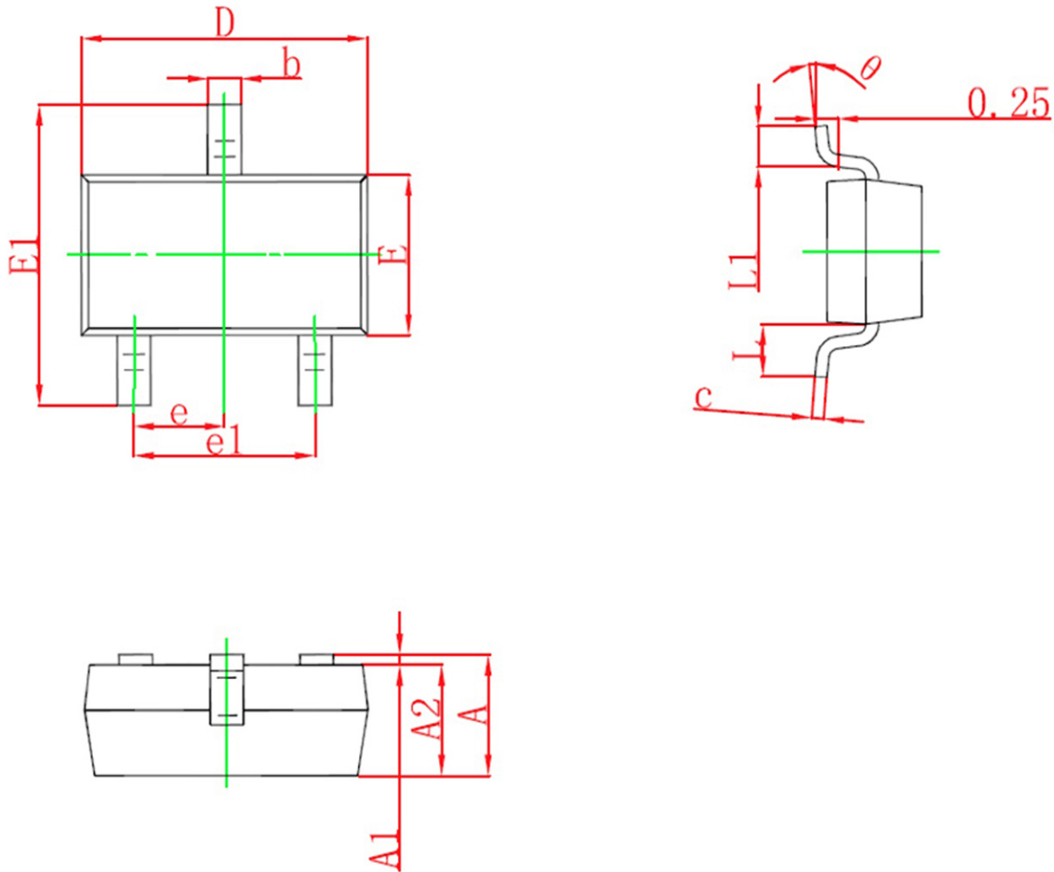
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	BC846	80	--	--	V
		BC847	50	--	--	
		BC848	30	--	--	
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BC846	65	--	--	V
		BC847	45	--	--	
		BC848	30	--	--	
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	6			V
I_{CBO}	Collector cut-off current	BC846	--	--	0.1	μA
		BC847				
		BC848				
I_{EBO}	Emitter cut-off current	$V_{EB}=5V, I_C=0$	--	--	0.1	μA
h_{FE}	DC current gain	BC846A,847A,848A	110	--	220	
		BC846B,847B,848B	200	--	450	
		BC847C,BC848C	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°