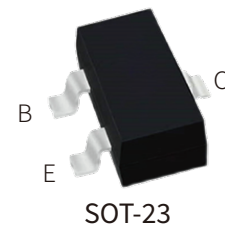


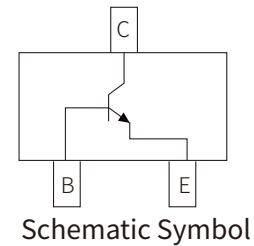
FEATURES

- | Complementary to BC856/BC857/BC858
- | Power Dissipation of 200mW
- | Ideally suited for automatic insertion
- | For switching and AF amplifier applications



MECHANICAL DATA

- | Small Outline Plastic Package
- | Epoxy UL: 94V-0
- | Mounting position: Any



APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

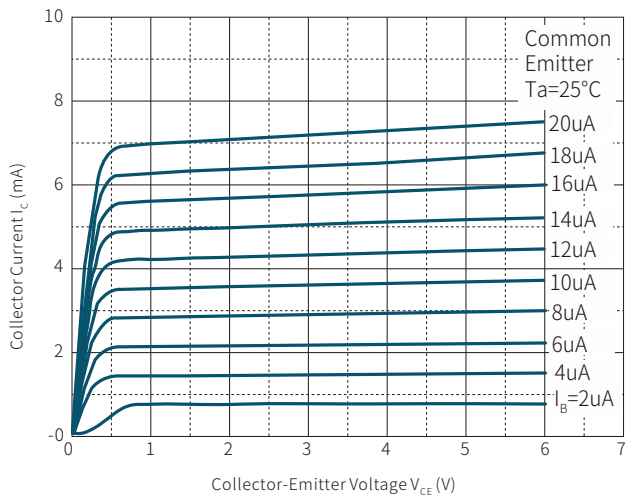
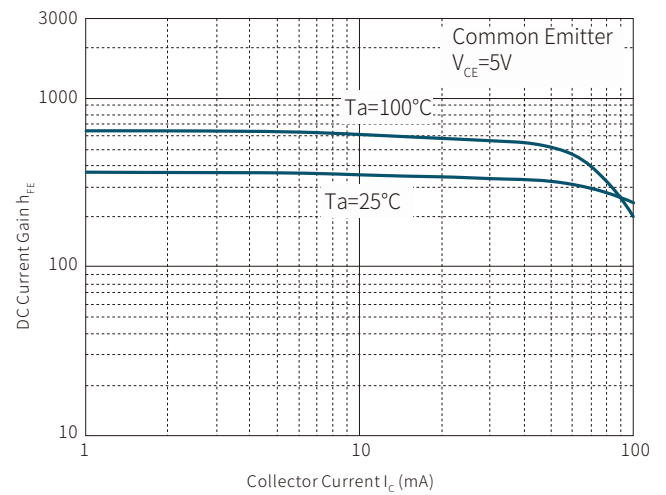
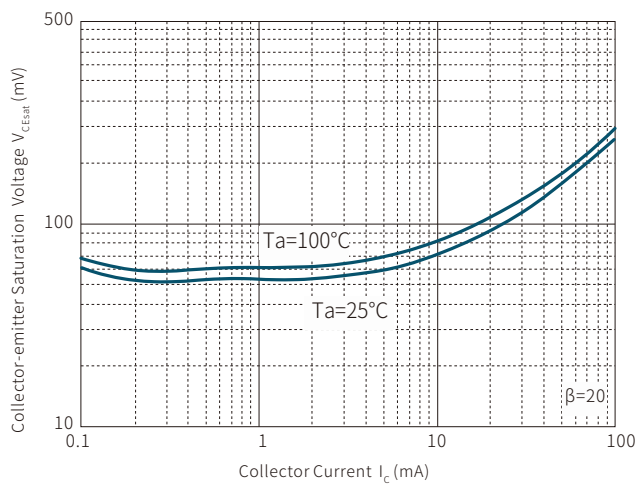
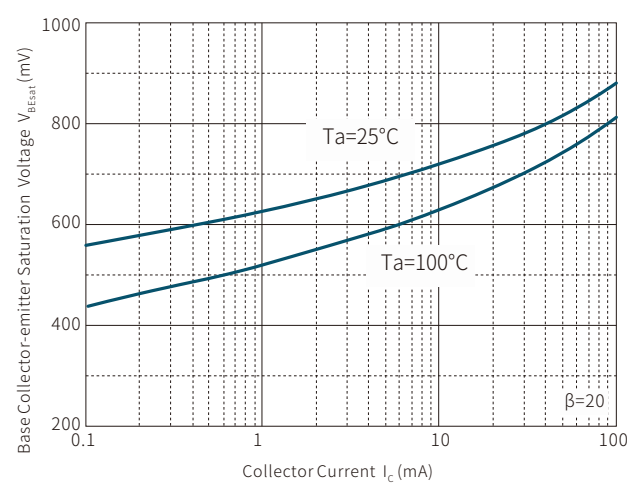
Parameter	Symbol	BC846		BC847			BC848			Unit
Marking		BC846A	BC846B	BC847A	BC847B	BC847C	BC848A	BC848B	BC848C	
		1A	1B	1E	1F	1G	1J	1K	1L	
Collector-Base Voltage	V _{CBO}	80		50			30			V
Collector-Emitter Voltage	V _{CEO}	65		45			30			V
Emitter-Base Voltage	V _{EBO}	6								V
Collector Current-Continuous	I _C	100								mA
Collector Power Dissipation	P _C	200								mW
Thermal resistance From junction to ambient	R _{θJA}	625								°C/W
Junction Temperature	T _J	150								°C
Storage Temperature	T _{STG}	-55~+150								°C

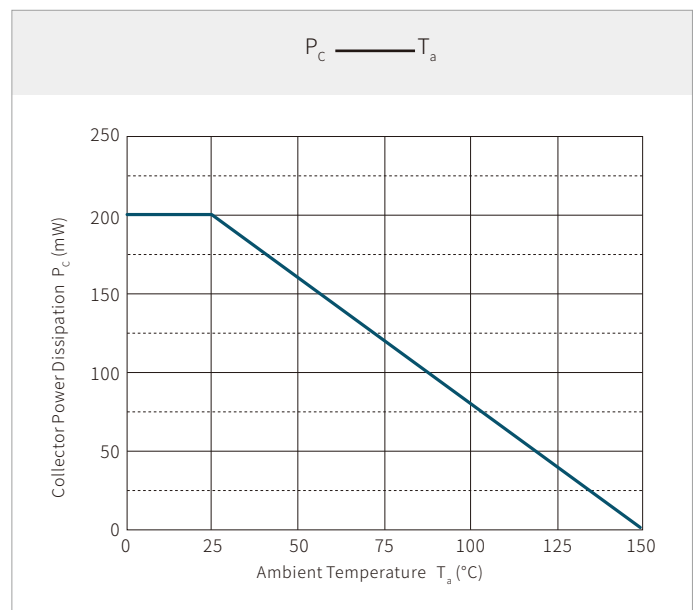
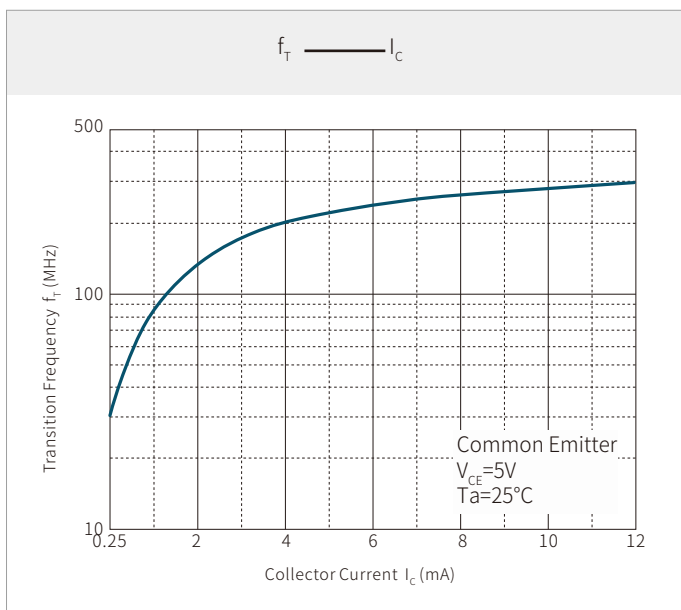
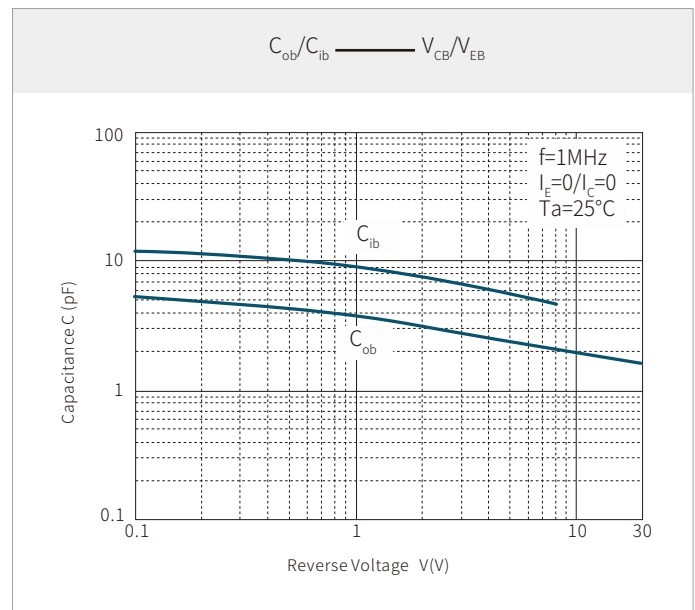
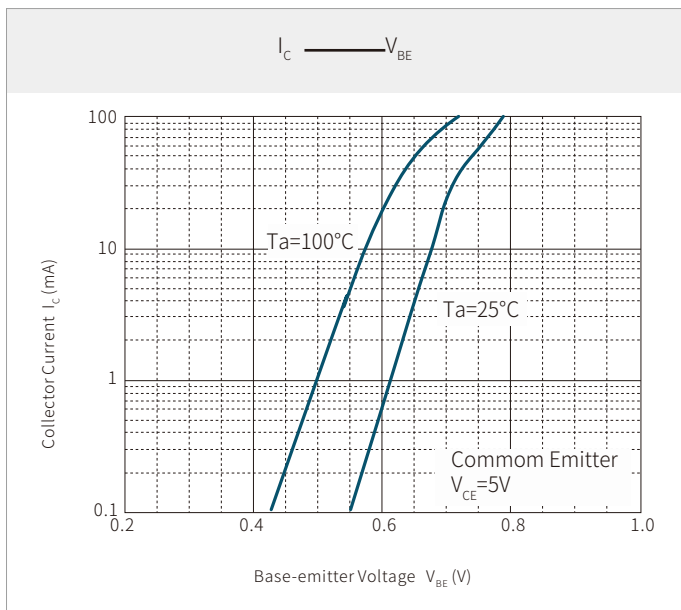
ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	BC846	I _C =10uA, I _E =0	80			V
		BC847		50			
		BC848		30			
Collector-emitter breakdown voltage	V _{(BR)CEO}	BC846	I _C =10mA, I _B =0	65			V
		BC847		45			
		BC848		30			
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10uA, I _C =0		6			V
Collector cut-off current	I _{CBO}	BC846	V _{CB} = 70V, I _E =0			100	nA
		BC847	V _{CB} = 50V, I _E =0				
		BC848	V _{CB} = 30V, I _E =0				
Collector cut-off current	I _{CEO}	BC846	V _{CE} = 60V, I _B =0			100	nA
		BC847	V _{CE} = 45V, I _B =0				
		BC848	V _{CE} = 30V, I _B =0				
DC current gain	h _{FE}	BC846A; BC847A;BC848A	V _{CE} = 5V, I _C =2mA	110		220	
		BC846B; BC847B;BC848B		200		450	
		BC847C; BC848C		420		800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =5mA				0.50	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =100mA, I _B =5mA				1.10	V
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=100MHz		100			MHz
Collector output capacitance	Cob	V _{CB} =10V, f=1MHz				4.5	pF
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0V				100	nA

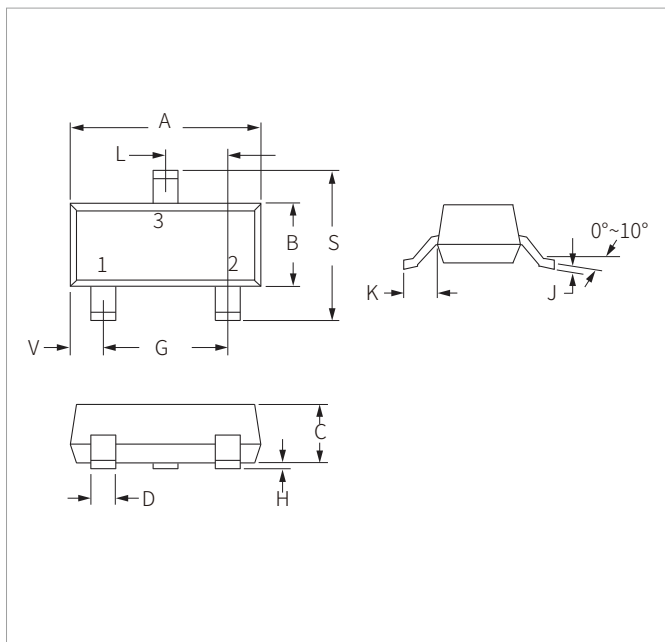
TYPICAL CHARACTERISTICS

Static Characteristic


 h_{FE} — I_C

 $V_{CE\text{ sat}}$ — I_C

 $V_{BE\text{ sat}}$ — I_C


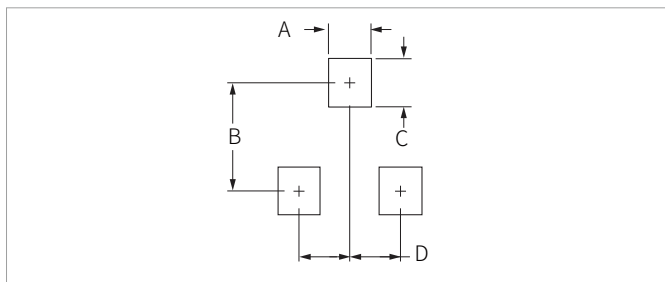


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.01	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.64	0.083	0.104
V	0.45	0.60	0.018	0.024

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
BC846-BC848	SOT-23	3000PCS	7"

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