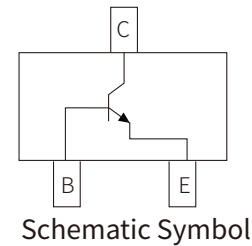
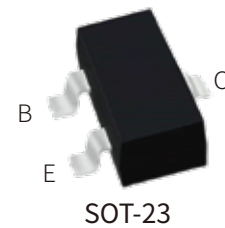


FEATURES

- Complementary to BC856Q/BC857Q/BC858Q
- Power Dissipation of 200mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications
- Meet AEC-Q101 Requirements



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

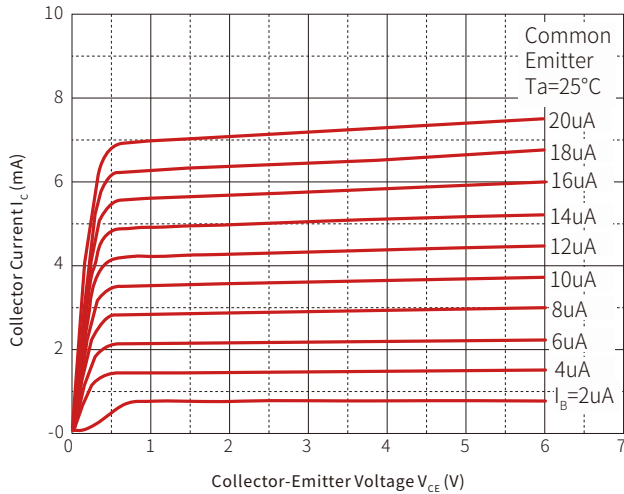
Parameter	Symbol	BC846Q		BC847Q			BC848Q			Unit
Marking		BC846AQ	BC846BQ	BC847AQ	BC847BQ	BC847CQ	BC848AQ	BC848BQ	BC848CQ	
		1A	1B	1E	1F	1G	1J	1K	1L	
Collector-Base Voltage	V _{CBO}	80		50			30			V
Collector-Emitter Voltage	V _{CEO}	65		45			30			V
Emitter-Base Voltage	V _{EBO}	6								V
Collector Current-Continuous	I _C	0.1								A
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)

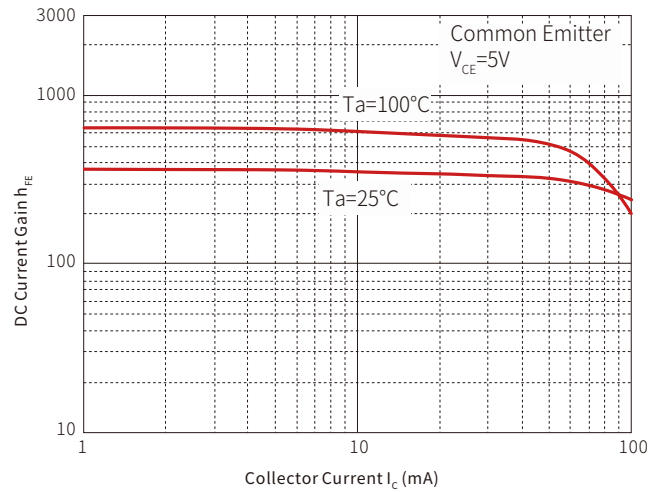
Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	BC846Q	I _C =10μA, I _E =0	80			V
		BC847Q		50			
		BC848Q		30			
Collector-emitter breakdown voltage	V _{(BR)CEO}	BC846Q	I _C =10mA, I _B =0	65			V
		BC847Q		45			
		BC848Q		30			
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0		6			V
Collector cut-off current	I _{CBO}	BC846Q	V _{CB} = 70V, I _E =0			0.1	μA
		BC847Q	V _{CB} = 50V, I _E =0				
		BC848Q	V _{CB} = 30V, I _E =0				
DC current gain	h _{FE}	BC846AQ; BC847AQ;BC848AQ	V _{CE} = 5V, I _C =2mA	110		220	
		BC846BQ; BC847BQ;BC848BQ		200		450	
		BC847CQ BC848CQ		420		800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =5mA				0.5	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =100mA, I _B =5mA				1.1	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				0.1	μA

TYPICAL CHARACTERISTICS

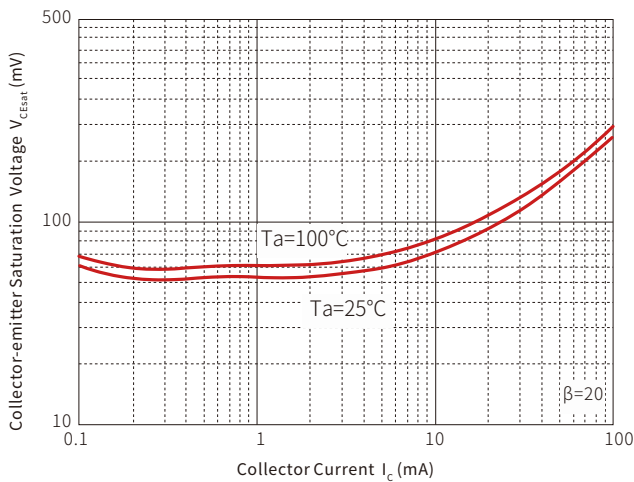
Static Characteristic



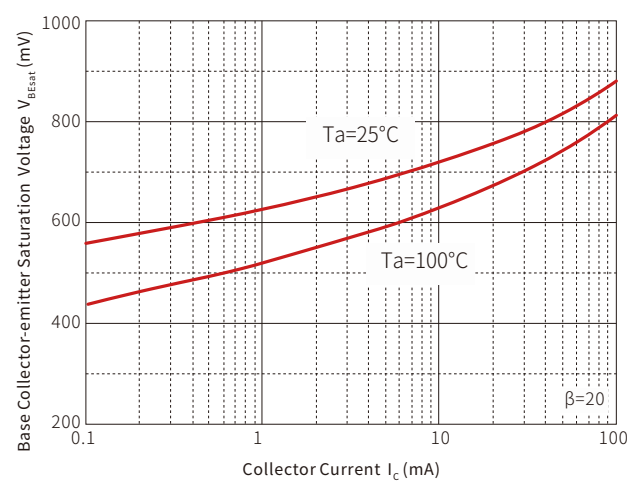
h_{FE} — I_C

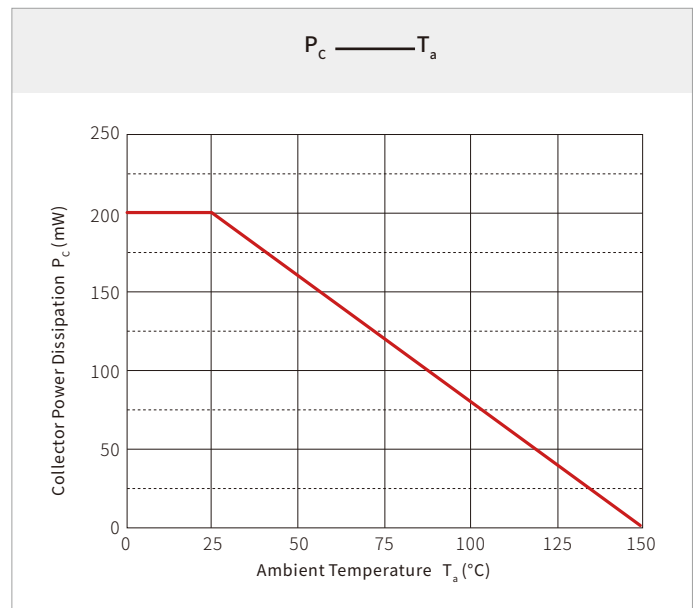
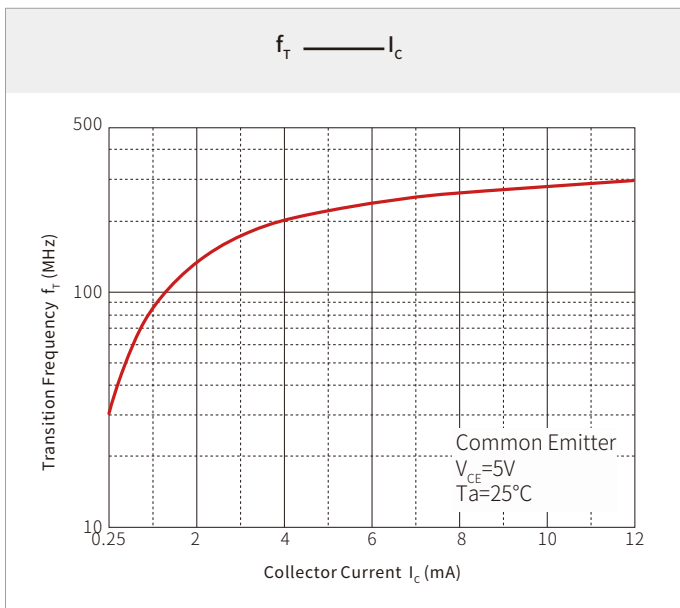
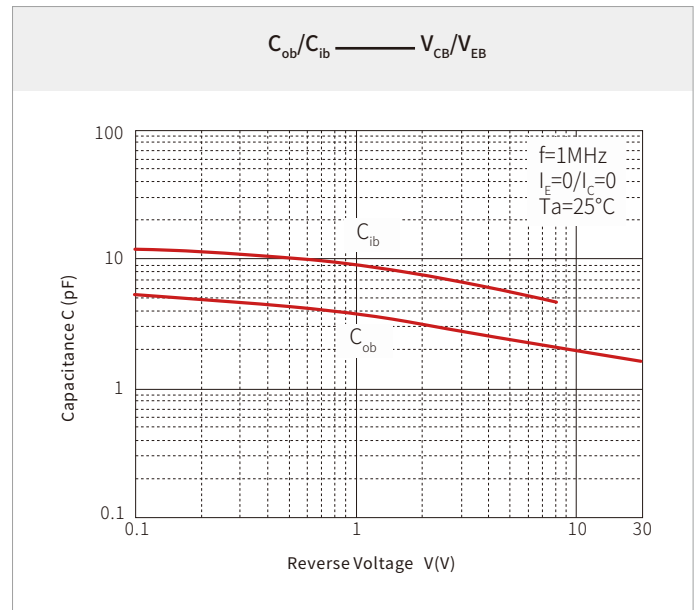
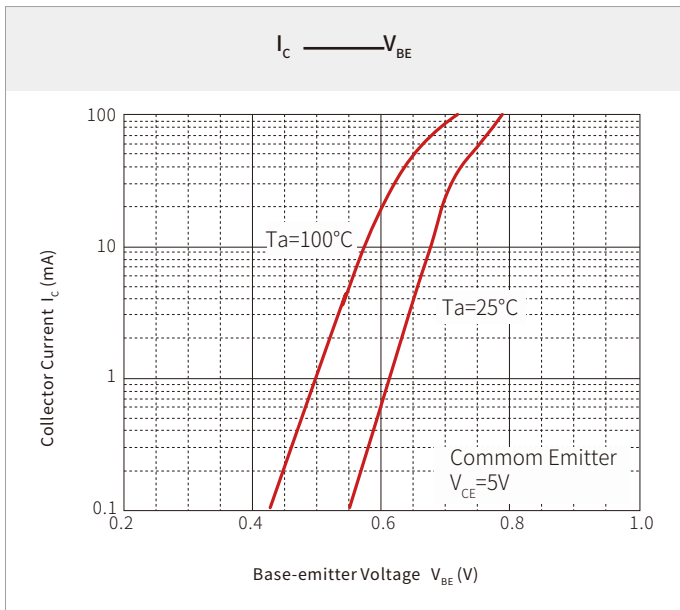


$V_{CE sat}$ — I_C

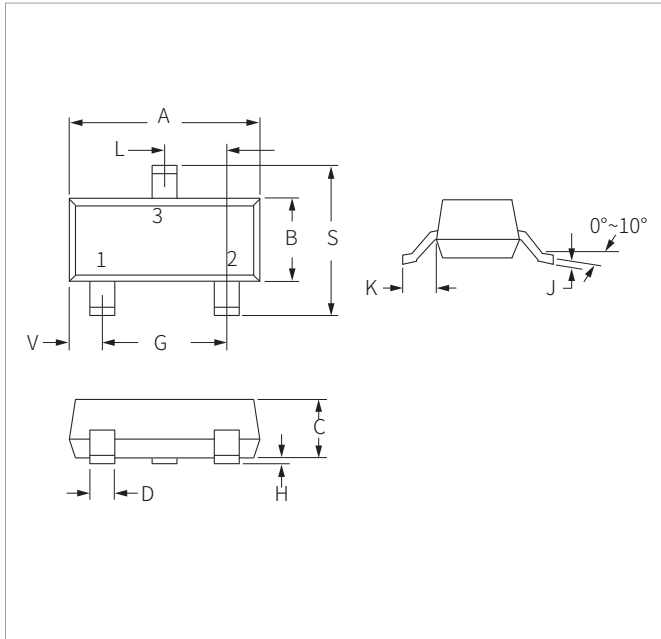


$V_{BE sat}$ — I_C



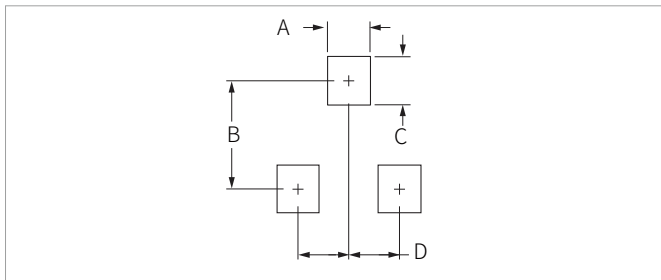


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.05	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.90	1.15	0.035	0.045
D	0.37	0.50	0.015	0.020
G	1.75	2.05	0.069	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	2.65	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
BC846Q-BC848Q	SOT-23	3000PCS	7"

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By QR Code

Website



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