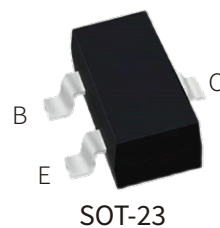


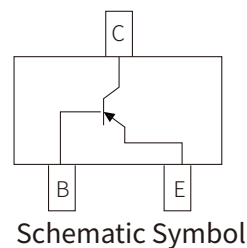
FEATURES

- | Complementary to BC846/BC847/BC848
- | 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 ($T_A=25^{\circ}\text{C}$)

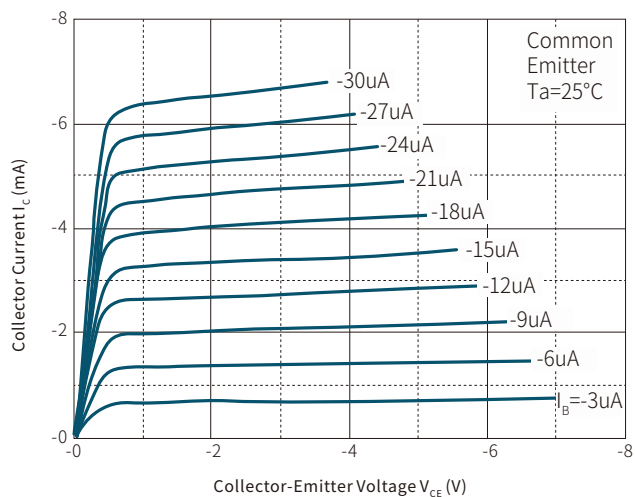
Parameter	Symbol	BC856		BC857			BC858			Unit
Marking		BC856A	BC856B	BC857A	BC857B	BC857C	BC858A	BC858B	BC858C	
		3A	3B	3E	3F	3G	3J	3K	3L	
Collector-Base Voltage	V _{CBO}	-80		-50			-30			V
Collector-Emitter Voltage	V _{CEO}	-65		-45			-30			V
Emitter-Base Voltage	V _{EBO}	-6								V
Collector Current-Continuous	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)

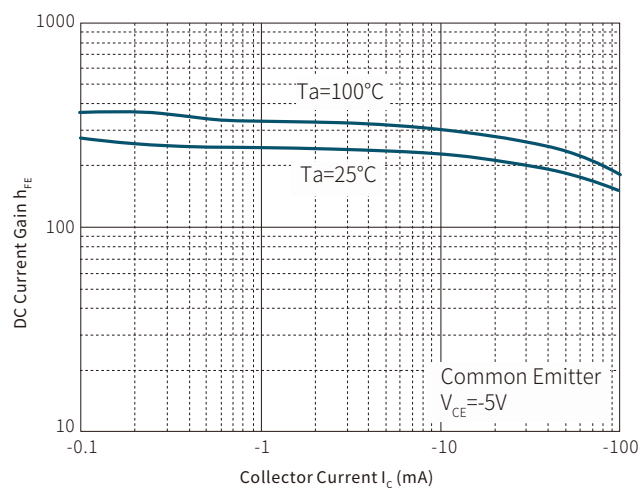
Parameter	Symbol	Test Conditions		Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	BC856	$I_C=-10\mu A, I_E=0$	-80			V
		BC857		-50			
		BC858		-30			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	BC856	$I_C=-10mA, I_B=0$	-65			V
		BC857		-45			
		BC858		-30			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$		-6			V
Collector cut-off current	I_{CBO}	BC856	$V_{CB}= -70V, I_E=0$			-100	nA
		BC857	$V_{CB}= -45V, I_E=0$				
		BC858	$V_{CB}= -25V, I_E=0$				
Collector cut-off current	I_{CEO}	BC856	$V_{CB}= -60V, I_B=0$			-100	nA
		BC857	$V_{CB}= -40V, I_B=0$				
		BC858	$V_{CB}= -25V, I_B=0$				
DC current gain	hFE	BC856A; BC857A;BC858A	$V_{CE}= -5V, I_C=-2mA$	125		250	
		BC856B; BC857B;BC858B		220		475	
		BC857C; BC858C		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	fT	$V_{CE}=-5V, I_C=-10mA, f=100MHz$		100			MHz
Collector output capacitance	Cob	$V_{CB}=-10V, f=100MHz$				4.5	pF
Emitter cut-off current	I_{EBO}	$V_{CE}=-5V, I_C=0V$				-100	nA

TYPICAL CHARACTERISTICS

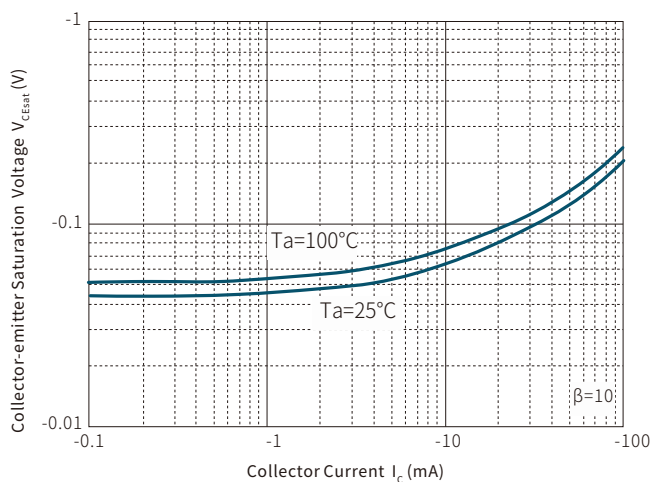
Static Characteristic



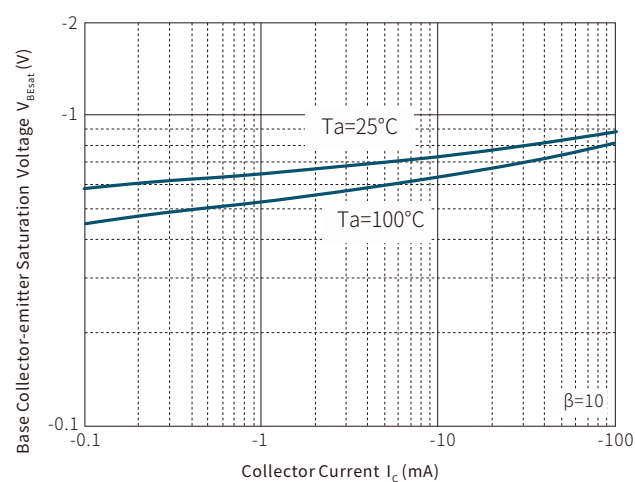
h_{FE} — I_C

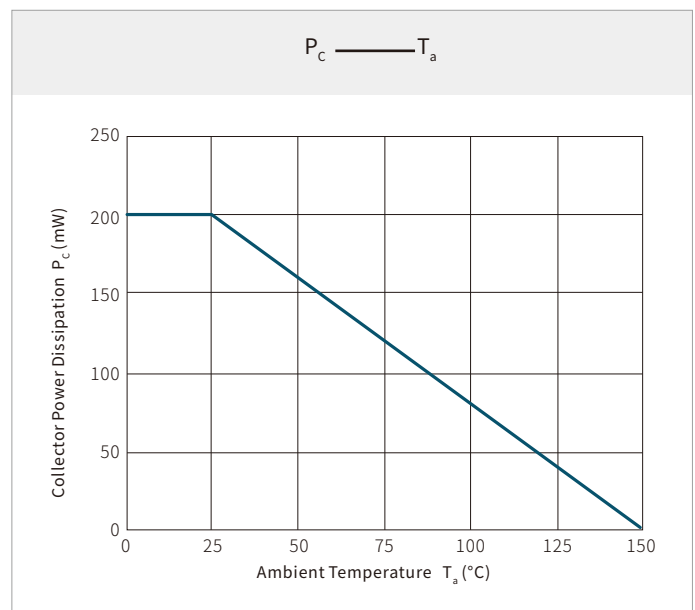
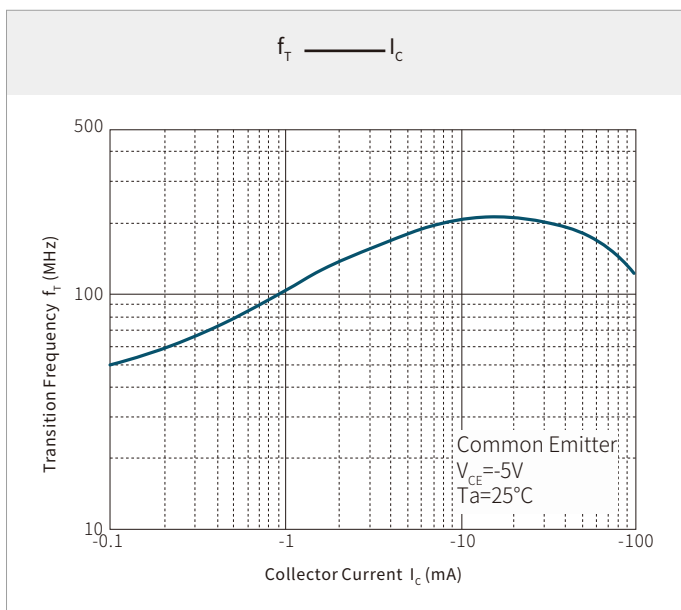
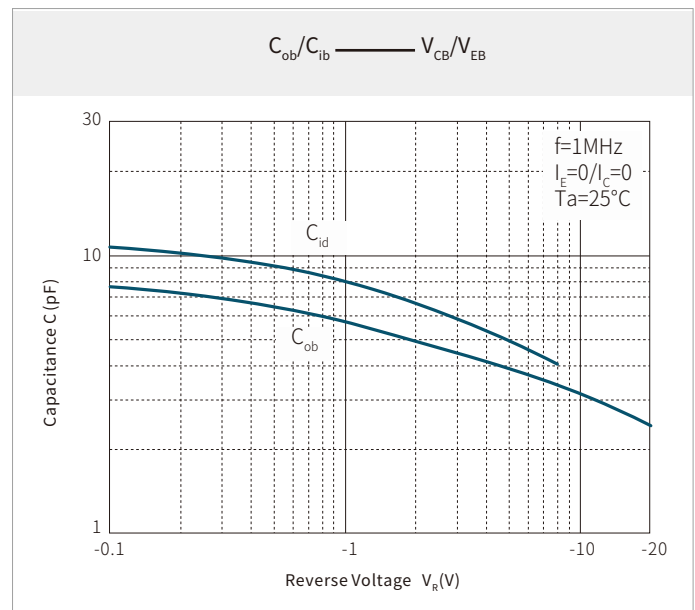
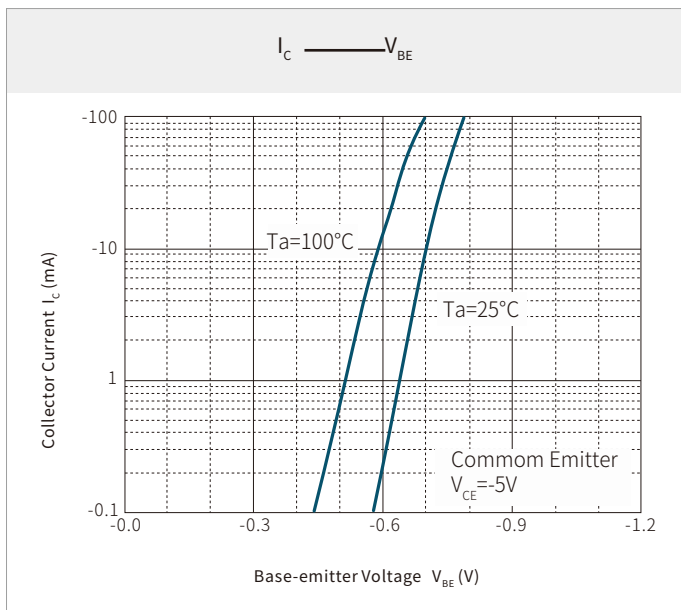


$V_{CE sat}$ — I_C

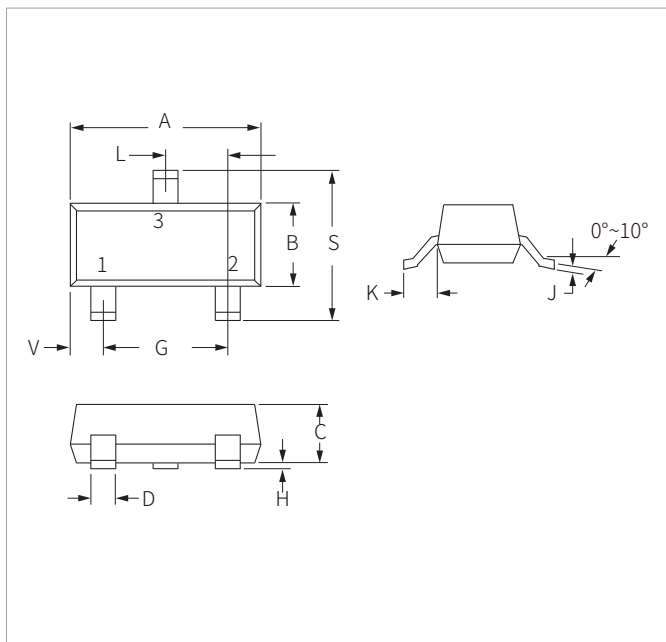


$V_{BE sat}$ — I_C



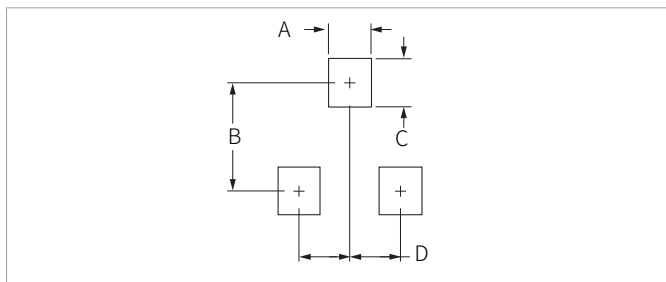


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.04	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
BC856-BC858	SOT-23	3000PCS	7"

To find your local partner within Semiwell's website : www.semiwell.com

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