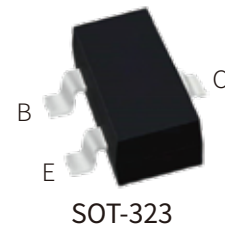


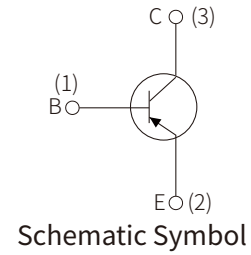
FEATURES

- | Complementary to BC817W
- | Ideally suited for automatic insertion
- | Epitaxial planar die construction



MECHANICAL DATA

- | SOT-323 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	Value	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	
Emitter-Base Voltage	V_{EBO}	-5	
Collector Current-Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_A=25°C)

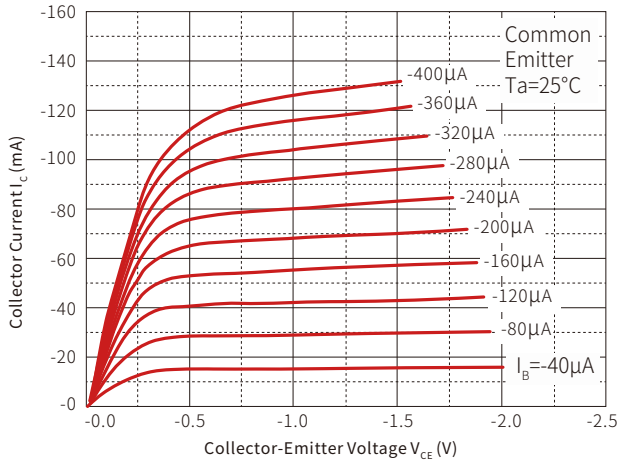
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-50			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-45			
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =-1μA, I _C =0	-5			
Collector Cut-off Current	I _{CBO}	V _{CB} =-20V, I _E =0			-100	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} =-5V, I _C =0			-100	
DC Current Gain	h _{FE(1)}	V _{CE} =-1V, I _C =-100mA	100		600	
	h _{FE(2)}	V _{CE} =-1V, I _C =-500mA	40			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.70	V
Base -Emitter Voltage	V _{BE(on)}	V _{CE} =-1V, I _C =-500mA			-1.20	
Transition Frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	80			MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			10	pF

CLASSIFICATION OF h_{FE(1)}

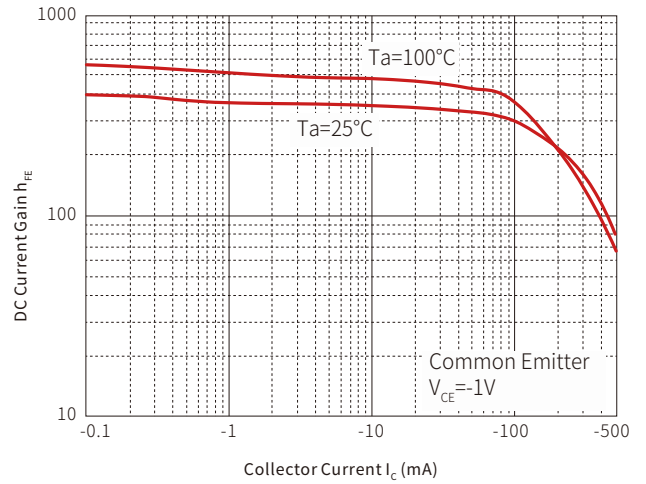
RANK	BC807-16W	BC807-25W	BC807-40W
RANGE	100-250	160-400	250-600
Marking	5A	5B	5C

TYPICAL CHARACTERISTICS

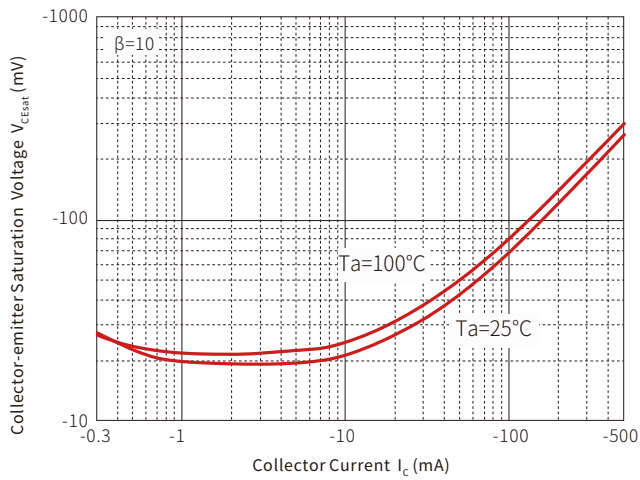
Static Characteristic



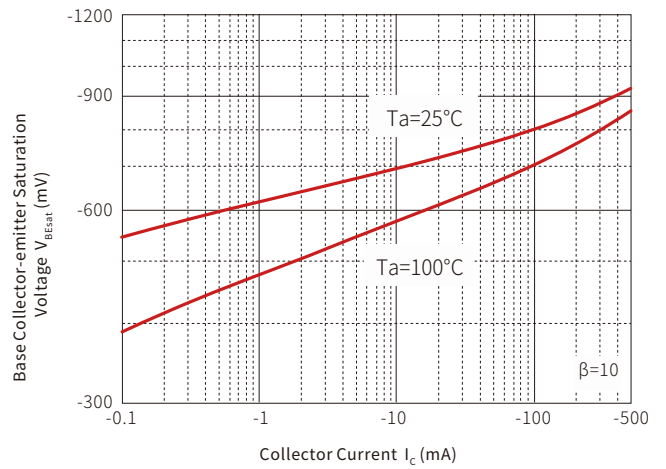
h_{FE} — I_c

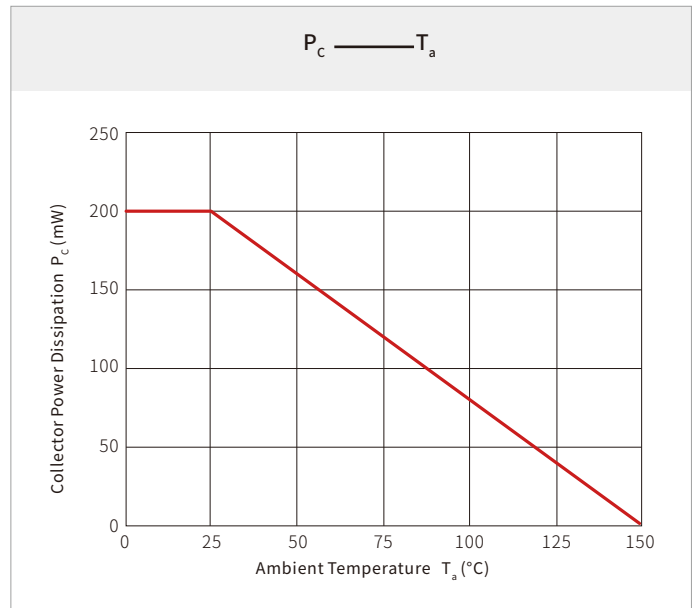
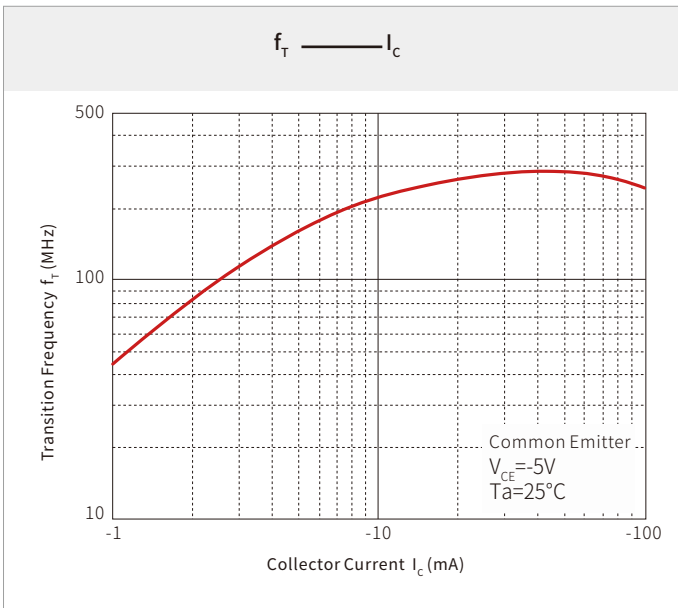
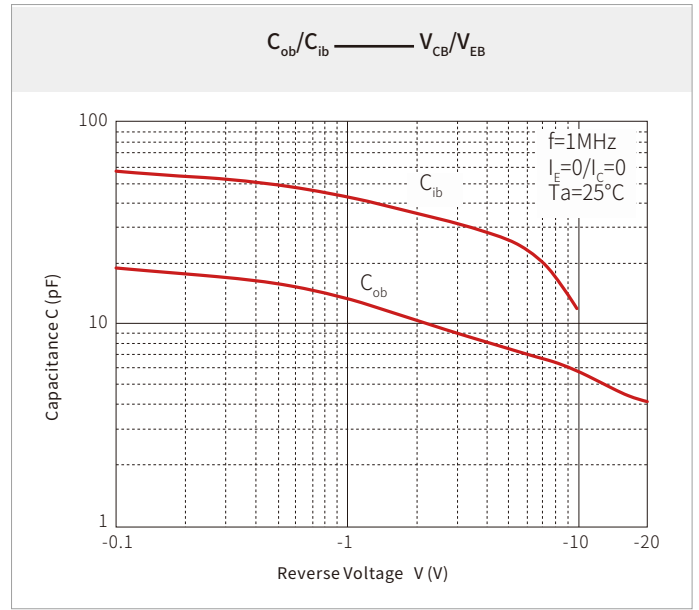
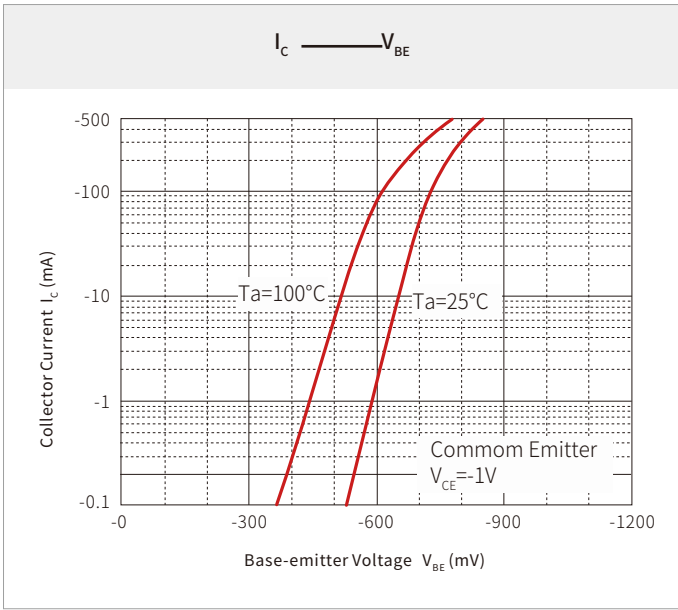


V_{CEsat} — I_c

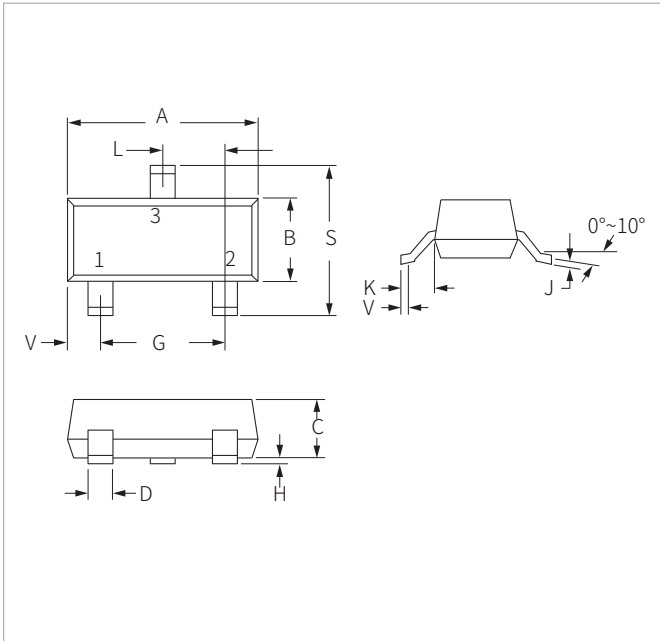


V_{BEsat} — I_c



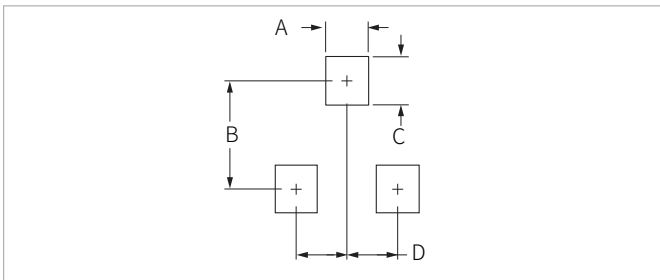


SOT-323 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.20	0.079	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.10	0.031	0.043
D	0.20	0.40	0.008	0.016
G	1.20	1.40	0.047	0.055
H	0.00	0.10	0.000	0.004
J	0.08	0.15	0.003	0.006
K	0.525REF		0.021REF	
L	0.650TYP		0.026TYP	
S	2.15	2.45	0.085	0.096
V	0.26	0.46	0.010	0.018

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
	NOR	NOR
A	0.50	0.020
B	2.20	0.087
C	0.80	0.031
D	1.30	0.051

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
BC807W	SOT-323	3000PCS	7"

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By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

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