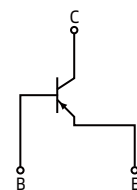


Features

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



SOT-323



Equivalent Circuit

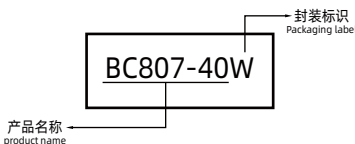
Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.5	A
P_C	Collector Power Dissipation	0.2	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction And Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=-10\mu\text{A}, I_E=0$	-50		V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-10\text{mA}, I_B=0$	-45		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=-1\mu\text{A}, I_C=0$	-5		V
I_{CBO}	Collector cut-off current	$V_{CB}=-20\text{V}, I_E=0$		-0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5\text{V}, I_C=0$		-0.1	μA
$h_{FE(1)}$	DC current gain	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	100	600	
$h_{FE(2)}$		$V_{CE}=-1\text{V}, I_C=-500\text{mA}$	40		
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.7	V
$V_{BE(on)}$	Base-emitter voltage	$V_{CE}=-1\text{V}, I_C=-500\text{mA}$		-1.2	V
f_T	Transition frequency	$V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	80		MHz
C_{ob}	Collector output capacitance	$V_{CB}=-10\text{V}, f=1\text{MHz}$		10	pF

Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE(1)}$	Qty(PCS)
BC807-25W	SOT-323		5B	160-400	3000
BC807-40W			5C	250-600	



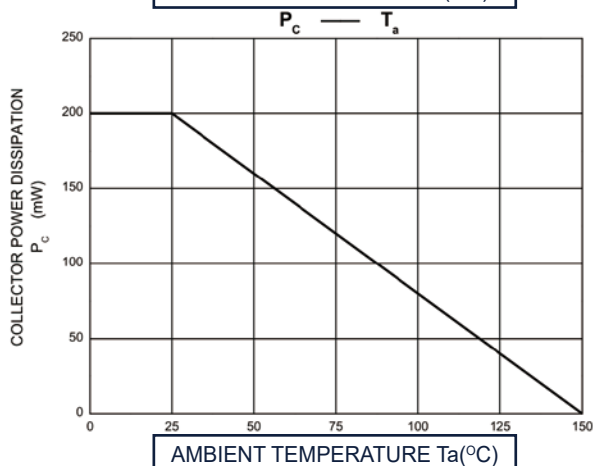
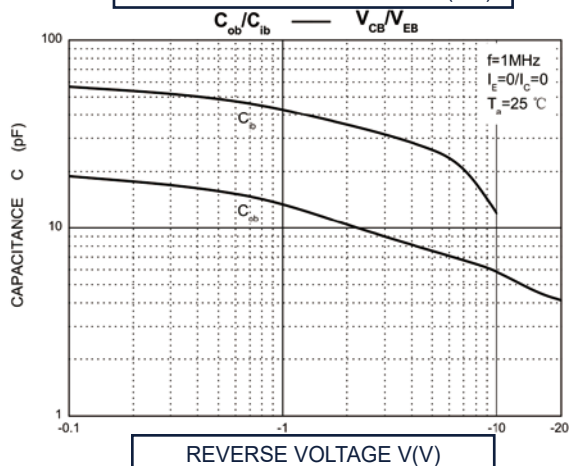
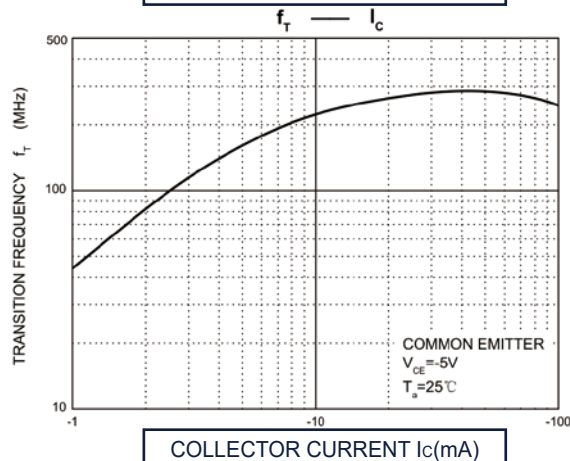
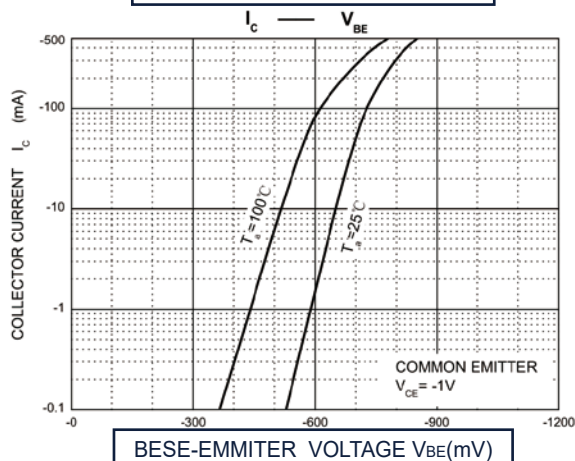
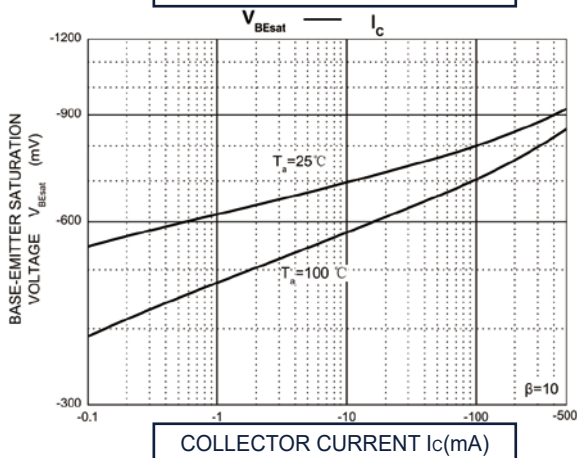
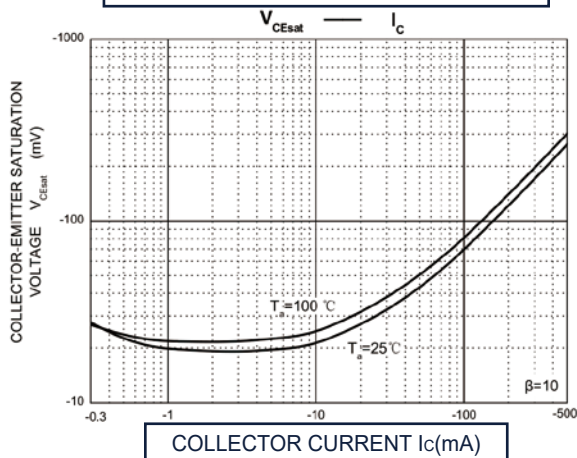
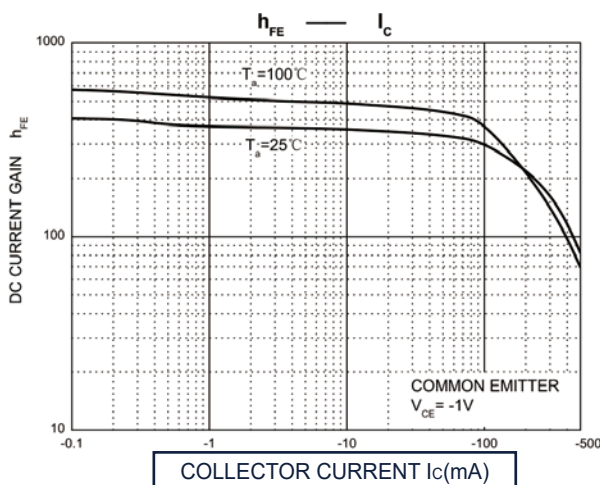
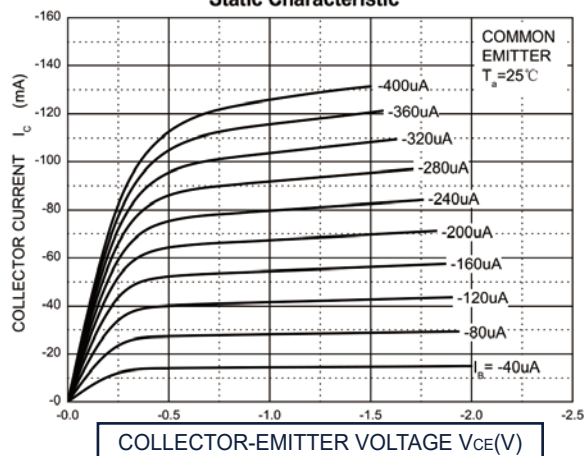
TWTLSEMI

TL-BC807-40W

SOT-323 Plastic-Encapsulate Transistors (PNP)

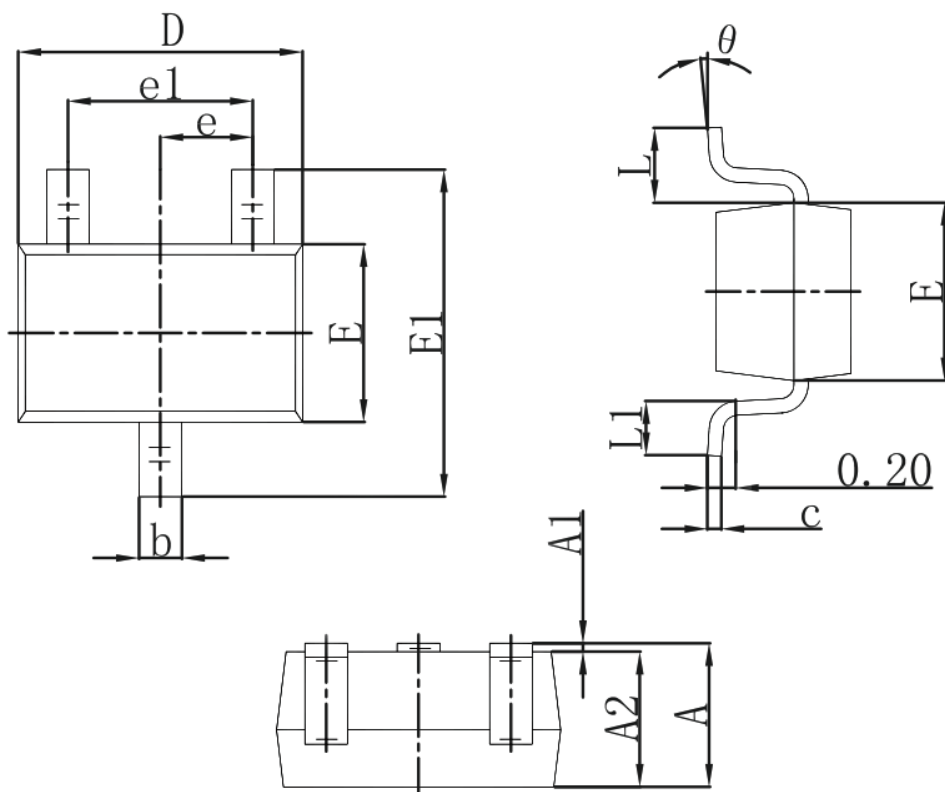
Typical Characteristics

Static Characteristic





SOT-323 Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	1.350	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°