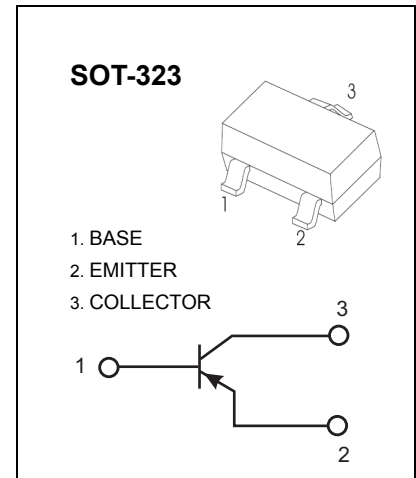


Features

- High Conductance
- Surface Mount Package Ideally Suited For Automatic Insertion
- Compliant to Halogen-free

Mechanical Data

- **Package:** SOT-323
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Tin plated leads, solderable per
J-STD-002 and JESD22-B102



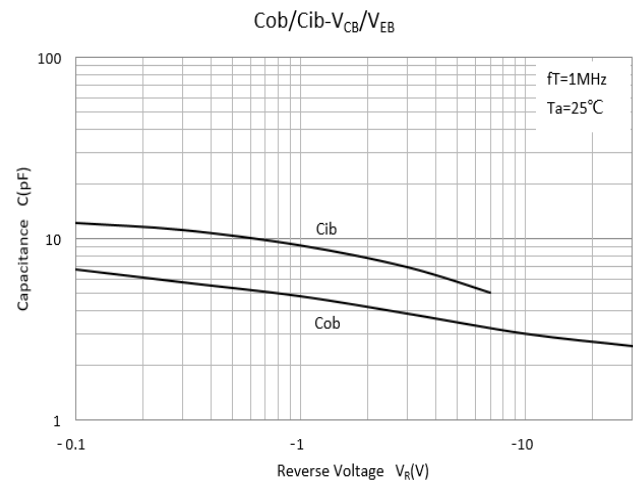
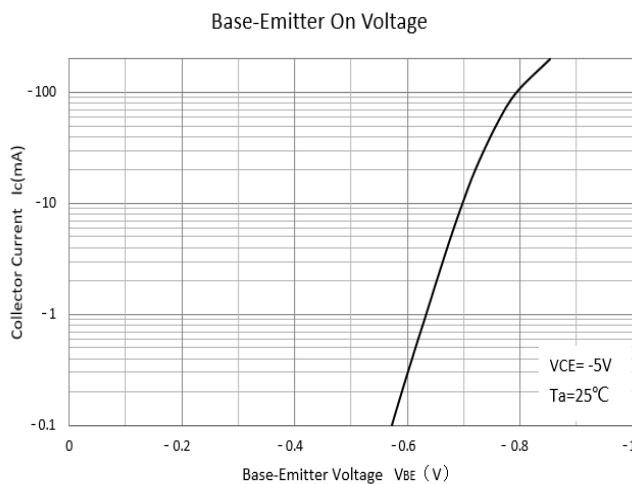
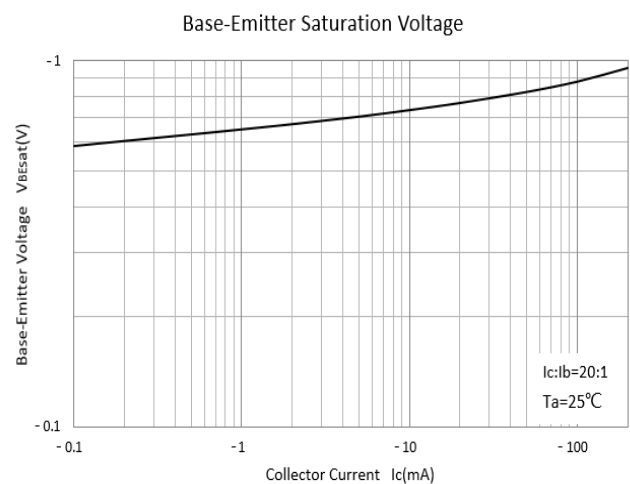
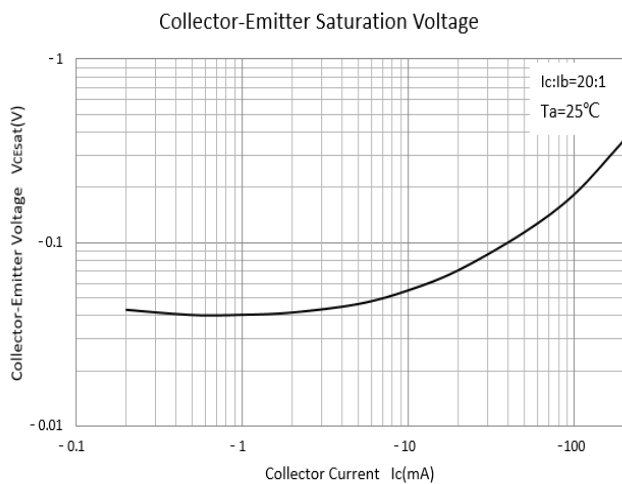
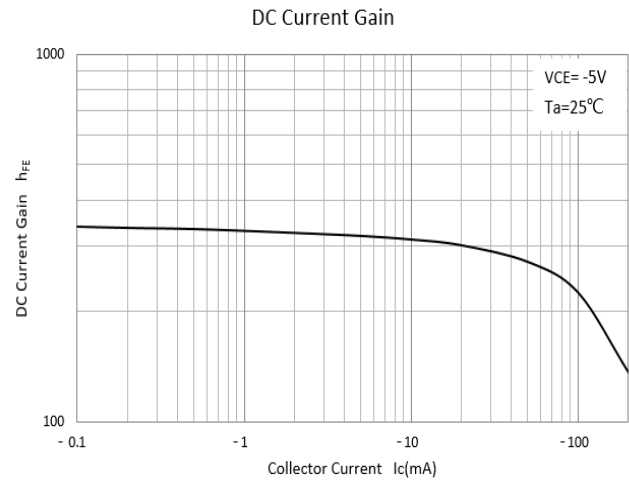
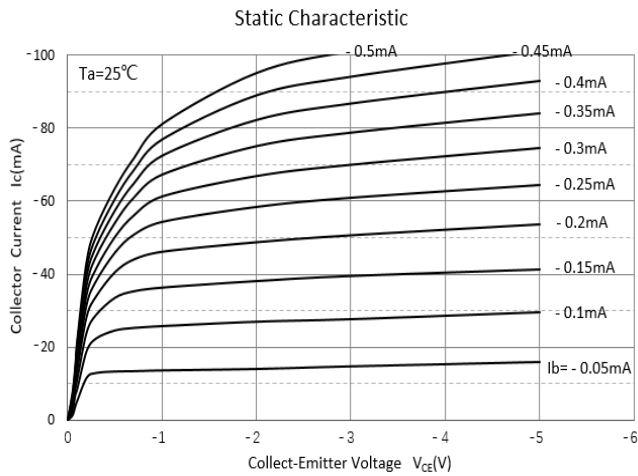
Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	BC856AW BC856BW	BC857AW BC857BW BC857CW	BC858AW BC858BW BC858CW	Unit
Collector-Base Voltage	V_{CBO}	-80	-50	-30	V
Collector-Emitter Voltage	V_{CEO}	-65	-45	-30	V
Emitter-Base Voltage	V_{EBO}	-5	-5	-5	V
Collector Current (Continuous)	I_C	-100			mA
Power Dissipation	P_D	200			mW
Operating Junction Temperature	T_J	-55 ~ +150			°C
Storage Temperature Range	T_{STG}	-55 ~ +150			°C

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage BC856	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-80	-	-	V
Collector-Base Breakdown Voltage BC857			-50	-	-	
Collector-Base Breakdown Voltage BC858			-30	-	-	
Collector-Emitter Breakdown Voltage BC856	V _{(BR)CEO}	I _C = -10mA, I _B = 0	-65	-	-	V
Collector-Emitter Breakdown Voltage BC857			-45	-	-	V
Collector-Emitter Breakdown Voltage BC858			-30	-	-	V
Emitter-Base Breakdown Voltage BC856	V _{(BR)EBO}	I _E = -1μA, I _C = 0	-5	-	-	V
Emitter-Base Breakdown Voltage BC857			-5	-	-	V
Emitter-Base Breakdown Voltage BC858			-5	-	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} = -30V, I _E = 0	-	-	-100	nA
Emitter-base Cut-off Current	I _{EBO}	V _{EB} = -5V, I _C = 0	-	-	-100	nA
DC Current Gain BC856/857/858AW	h _{FE}	V _{CE} = -5V, I _C = -2mA	125	-	250	-
DC Current Gain BC856/857/858BW			220	-	475	-
DC Current Gain BC857/858CW			420	-	800	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = -100mA, I _B = -5mA	-	-	-0.65	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = -100mA, I _B = -5mA	-	-0.85	-	V
Transition Frequency	f _T	V _{CE} = -5V, I _C = -10mA f = 100MHz	100	-	-	MHz
Collector Capacitance	C _C	V _{CB} = -10V, f = 1MHz	-	4.5	-	pF

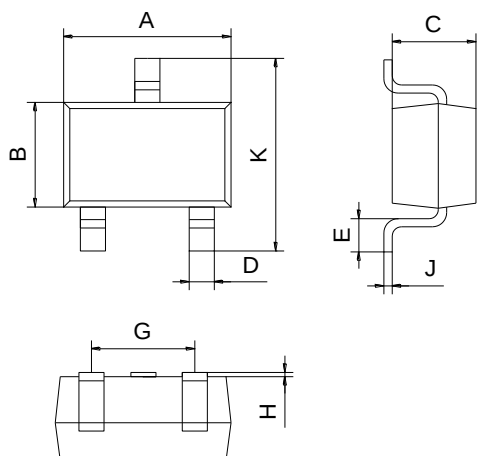
Characteristics (Typical)



Marking

Type number	Marking code
BC856AW	3A
BC856BW	3B
BC857AW	3E
BC857BW	3F
BC857CW	3G
BC858AW	3J
BC858BW	3K
BC858CW	3L

SOT-323 Package Outline Dimensions



SOT-323		
Dimension	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.40
E	0.25	0.40
G	1.20	1.40
H	0.00	0.10
J	0.05	0.25
K	2.10	2.45

SOT-323 Soldering Footprint (mm)

