

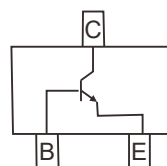
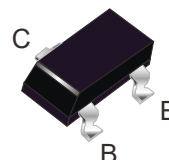
Features

- Epoxy meets UL-94 V-0 flammability rating
- Complementary to BC856W,BC857W,BC858W
- Power Dissipation of 150mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

Mechanical Data

- Case:SOT-323
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Marking:BC846AW:1A, BC846BW:1B
BC847AW:1E, BC847BW:1F, BC847CW:1G
BC848AW:1J, BC848BW:1K, BC848CW:1L

SOT-323



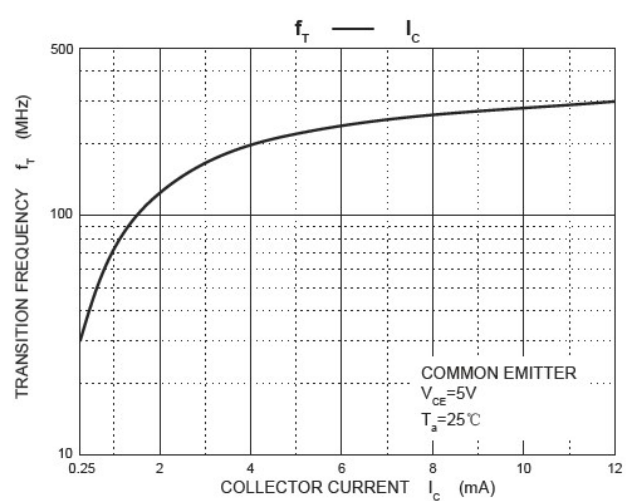
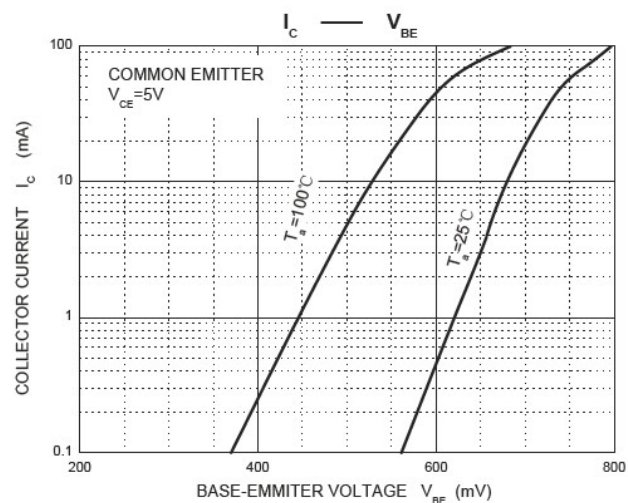
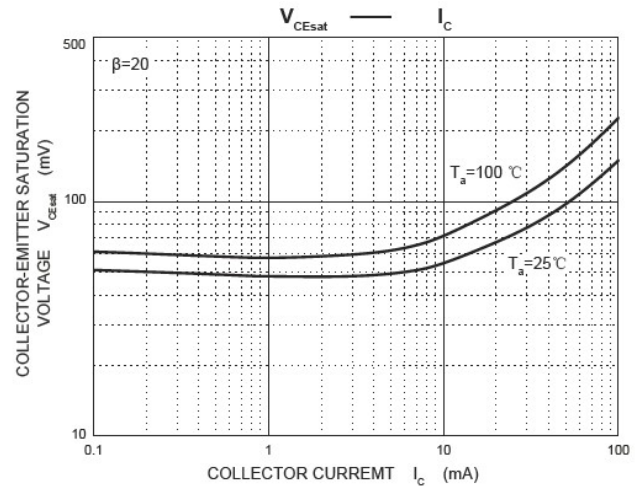
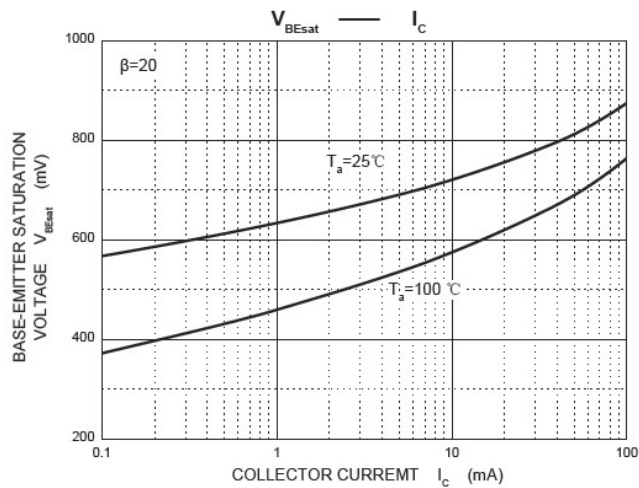
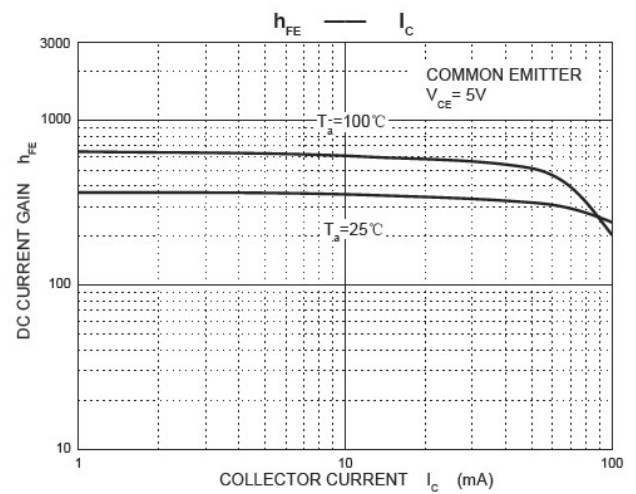
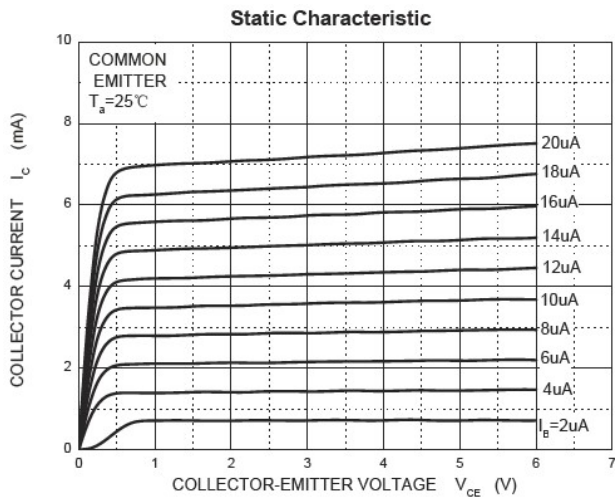
Maximum Ratings($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

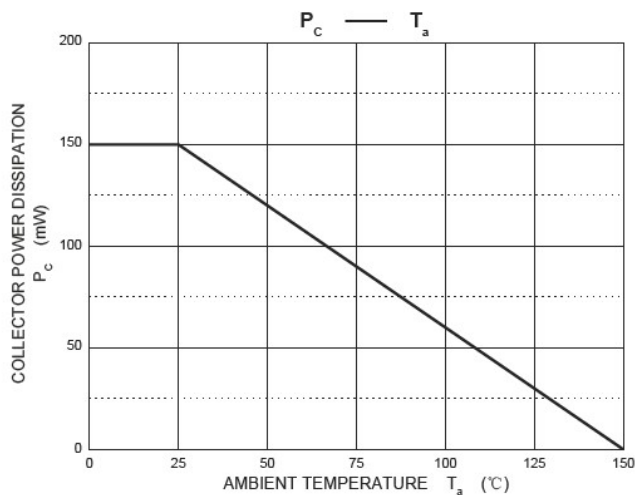
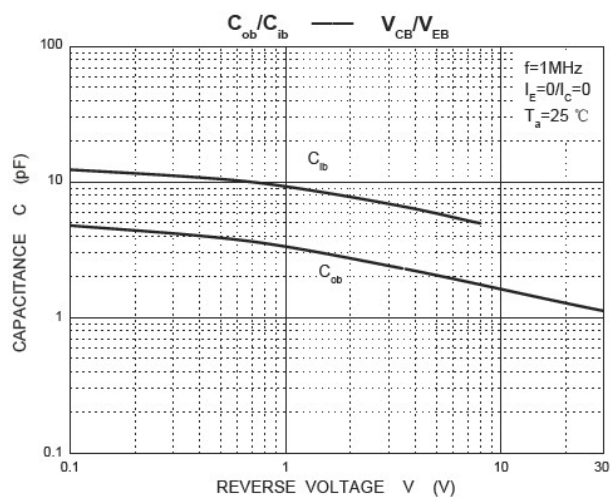
Item	Symbol	Unit	Value	
Collector-Emitter Voltage	V_{CEO}	V	BC846W BC847W BC848W	65 45 30
Collector-Base Voltage	V_{CBO}	V	BC846W BC847W BC848W	80 50 30
Emitter-Base Voltage	V_{EBO}	V	BC846W BC847W BC848W	6.0 6.0 5.0
Collector Current, Continuous	I_C	mA	100	
Power Dissipation	P_D	mW	150	
Operation Junction Temperature	T_J	$^{\circ}\text{C}$	-55 to +150	
Storage Temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150	
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	833	

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

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	$I_C = 10\text{mA}, I_B = 0$	BC846W 65 BC847W 45 BC848W 30	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	$I_C = 10\mu\text{A}, I_E = 0$	BC846W 80 BC847W 50 BC848W 30	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	$I_E = 1\mu\text{A}, I_C = 0$	BC846W 6.0 BC847W 6.0 BC848W 5.0	---
Collector cut-off Current	I_{CBO}	nA	$V_{CB} = 30\text{V}, I_C = 0$	---	15
DC Current Gain	h_{FE}		$I_C = 2\text{mA}, V_{CE} = 5\text{V}$ BC846AW, BC847AW, BC848AW BC846BW, BC847BW, BC848BW BC847CW, BC848CW	110 200 420	220 450 800
Collector-Emitter Saturation Voltage	$V_{CE(set)}$	V	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$ $I_C = 100\text{mA}, I_B = 5\text{mA}$	---	0.25 0.60
Base-Emitter Saturation Voltage	$V_{BE(set)}$	V	$I_C = 100\text{mA}, I_B = 5\text{mA}$	---	1.1
Output Capacitance	C_{ob}	pF	$V_{CB} = 10\text{V}, f = 1.0\text{MHz}, I_E = 0$	---	4.5
Transition frequency	f_T	MHz	$I_C = 10\text{mA}, V_{CE} = 5\text{V}$ $f = 100\text{MHz}$	100	---
Noise Figure	NF	dB	$V_{CE} = 5\text{V}, f = 1\text{MHz}, I_C = 0.2\text{mA}, R_S = 2\text{K}\Omega$ BC846AW, BC847AW, BC848AW BC846BW, BC847BW, BC848BW BC847CW, BC848CW	---	10 10 4

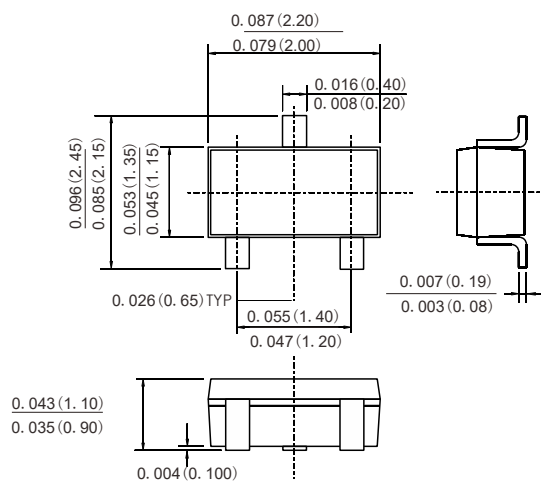
Characteristics(Typical)





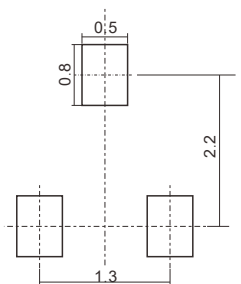
Outline Dimensions

SOT-323



Dimensions in inches and (millimeters)

Suggested pad layout



Dimensions in millimeters

Friendship Reminder

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