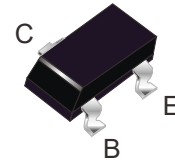


### Features

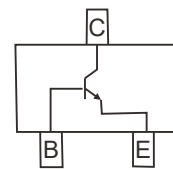
- Epoxy meets UL-94 V-0 flammability rating
- For General AF Applications
- High Collector Current
- High Current Gain
- Low Collector-Emitter Saturation Voltage

### SOT-323



### Mechanical Data

- Case: SOT-323
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any



### Maximum Ratings (T<sub>A</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V <sub>CEO</sub>	V	45
Collector-Base Voltage	V <sub>CB0</sub>	V	50
Emitter-Base Voltage	V <sub>EB0</sub>	V	5
Collector Current, Continuous	I <sub>C</sub>	mA	500
Collector Power Dissipation	P <sub>D</sub>	mW	200
Operation Junction Temperature	T <sub>J</sub>	°C	-55 to +150
Storage Temperature	T <sub>STG</sub>	°C	-55 to +150
Thermal resistance From junction to ambient	R <sub>θJA</sub>	°C/W	625

# BC817W

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

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	$I_C=10\text{mA}, I_B=0$	45	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	$I_C=10\mu\text{A}, I_E=0$	50	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	$I_E=1\mu\text{A}, I_C=0$	5	---
Collector cut-off Current	$I_{CBO}$	nA	$V_{CB}=20\text{V}, I_E=0$	---	100
Emitter cut-off Current	$I_{EBO}$	nA	$V_{EB}=5\text{V}, I_C=0$	---	100
DC Current Gain	$h_{FE(1)}$		$I_C=100\text{mA}, V_{CE}=1\text{V}$	100	600
	$h_{FE(2)}$		$I_C=500\text{mA}, V_{CE}=1\text{V}$	40	---
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=500\text{mA}, I_B=50\text{mA}$	---	0.7
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=500\text{mA}, I_B=50\text{mA}$	---	1.2
Base-Emitter Voltage	$V_{BE(ON)}$	V	$I_C=500\text{mA}, V_{CE}=1\text{V}$	---	1.2
Output Capacitance	$C_{ob}$	pF	$V_{CB}=10\text{V}, f=1.0\text{MHz}, I_E=0$	---	5
Current Gain-Bandwidth Product	$f_T$	MHz	$I_C=10\text{mA}, V_{CE}=5\text{V}$ $f=100\text{MHz}$	100	---

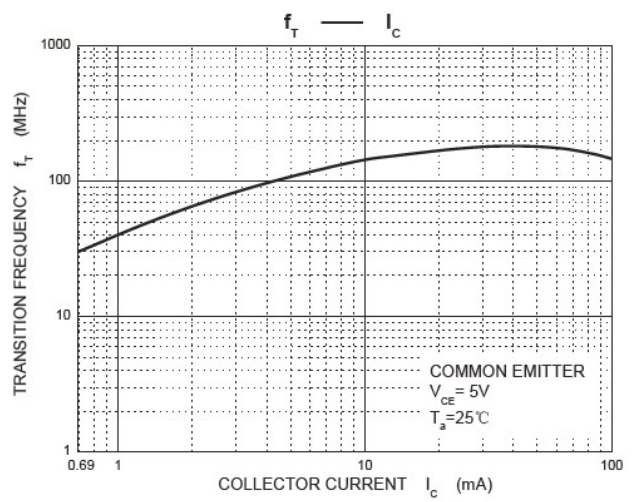
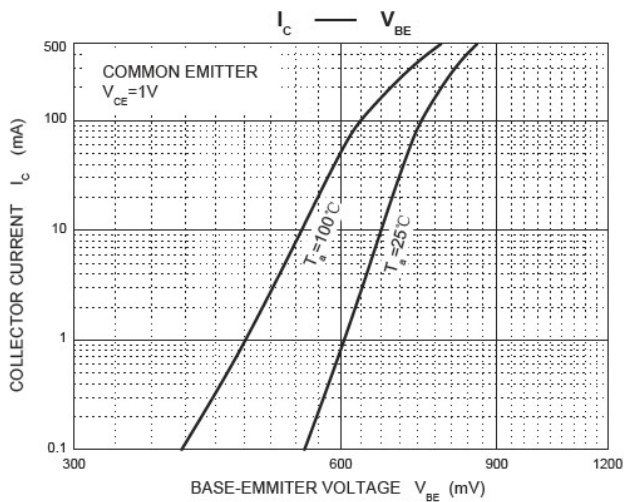
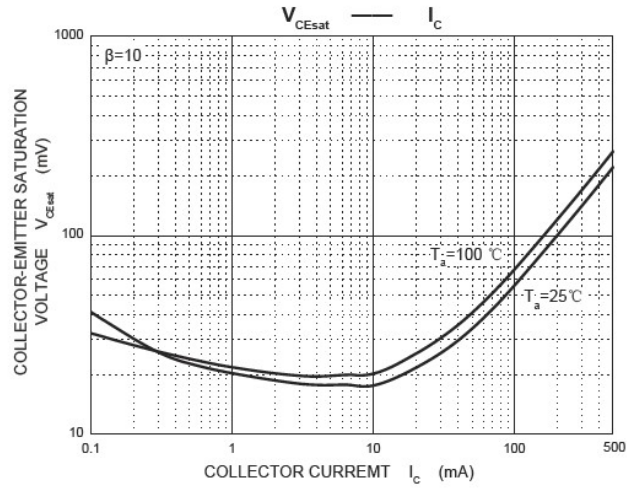
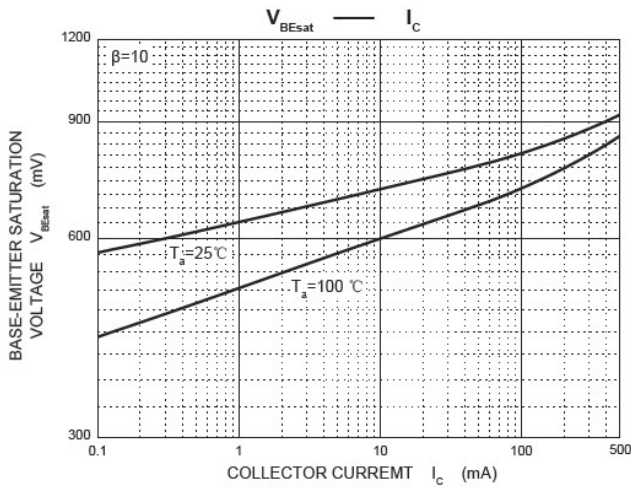
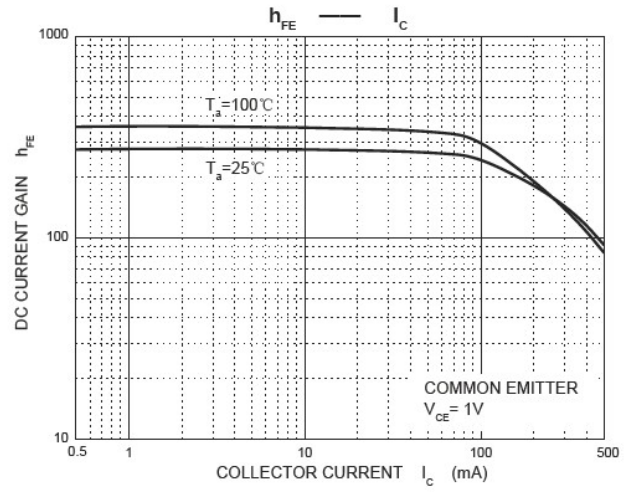
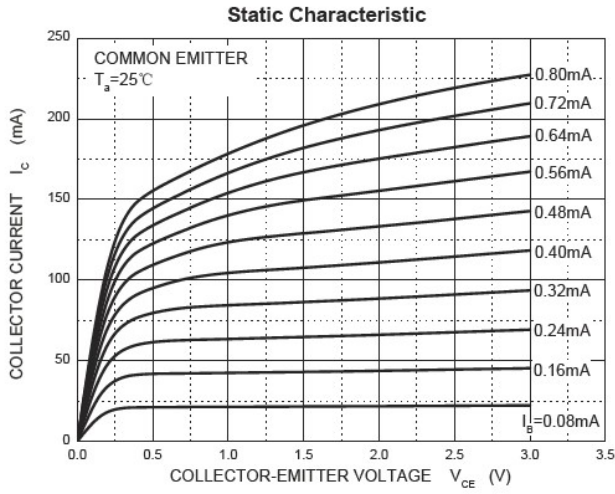
## Classification Of $h_{FE(2)}$

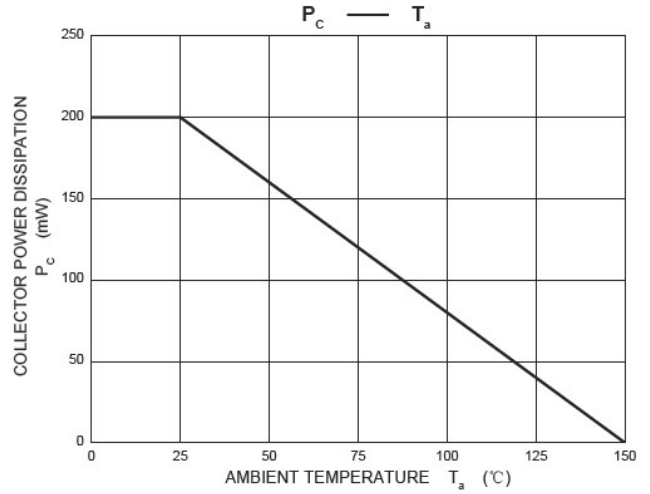
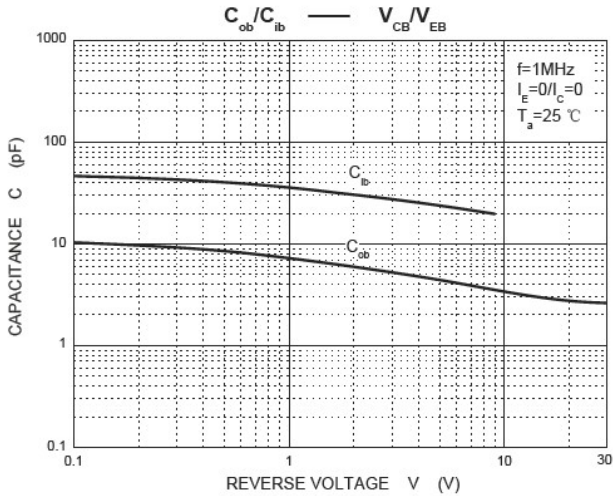
Rank	BC817-16W	BC817-25W	BC817-40W
Range	100-250	160-400	250-600
Marking	6A	6B	6C

## Available Pack Information

Product code	Pack	Reel Size (mm)	Quantity (Pcs/reel)	Quantity (pcs/box)	Quantity (pcs/carton)
BC817W	T/R	$\Phi 180$	3K	30K	120K

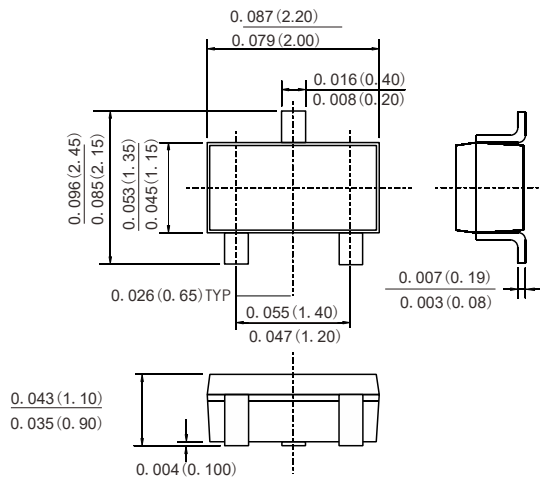
Characteristics(Typical)





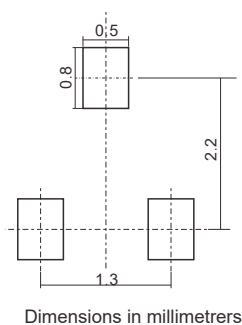
## Outline Dimensions

### SOT-323



Dimensions in inches and (millimeters)

## Suggested pad layout



Dimensions in millimeters

## Friendship Reminder

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