

BC817-16

BC817-25

BC817-40

0.3 Watts NPN Plastic-Encapsulate Transistors



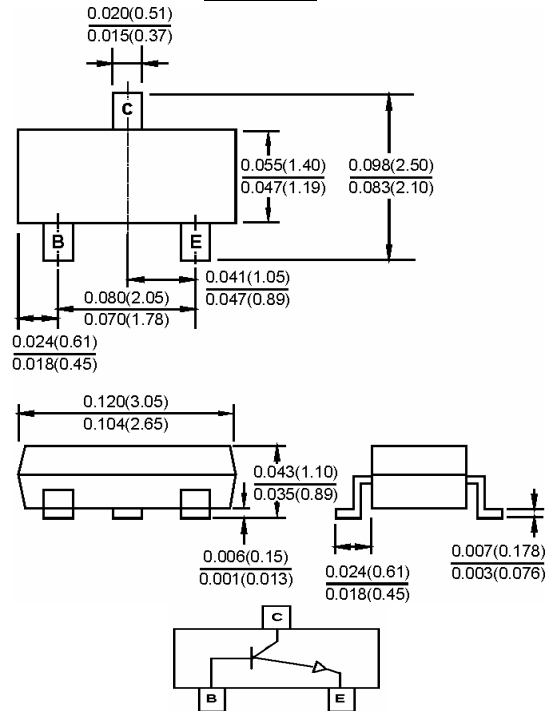
Features

- ✧ Ideally suited for automatic insertion
- ✧ Epitaxial planar die construction
- ✧ For switching, AF driver and amplifier applications
- ✧ Complementary PNP type available(BC807)
- ✧ Qualified to AEC-Q101 standards for high reliability

Mechanical Data

- ✧ Case: SOT-23, Molded plastic
- ✧ Case material: molded plastic. UL flammability classification rating 94V-0
- ✧ Moisture sensitivity: Level 1 per J-STD-020C
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Lead free plating
- ✧ Marking: -16:6A, -25: 6B, -40: 6C
- ✧ Weight: 0.008 gram (approx.)

SOT-23

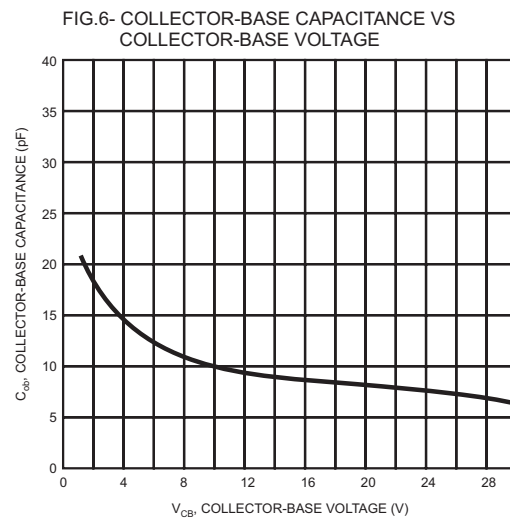
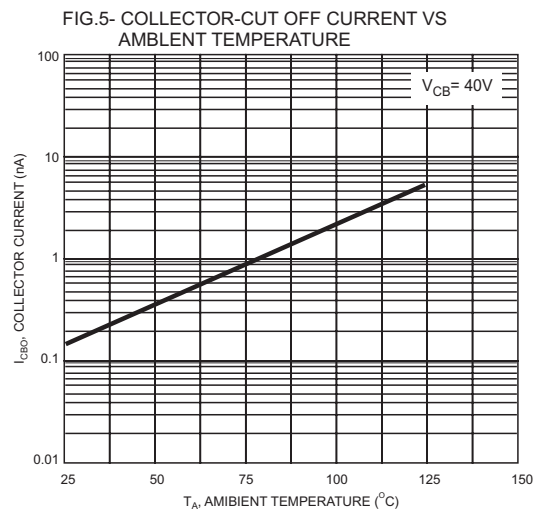
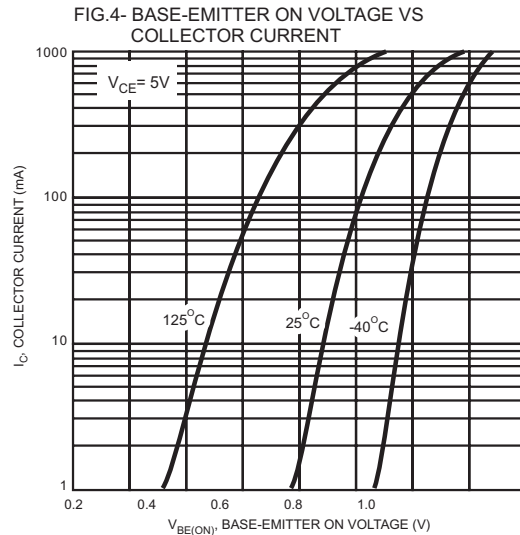
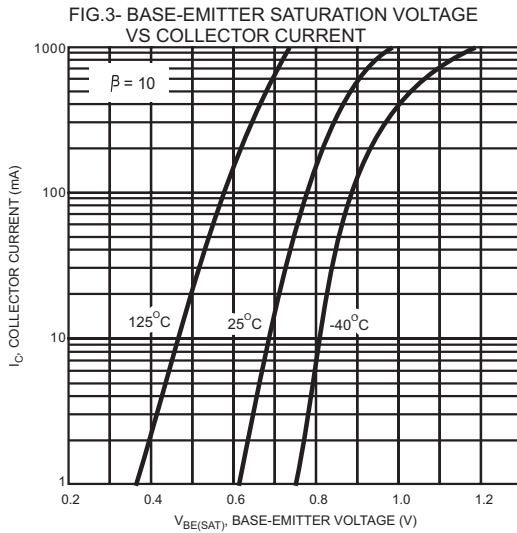
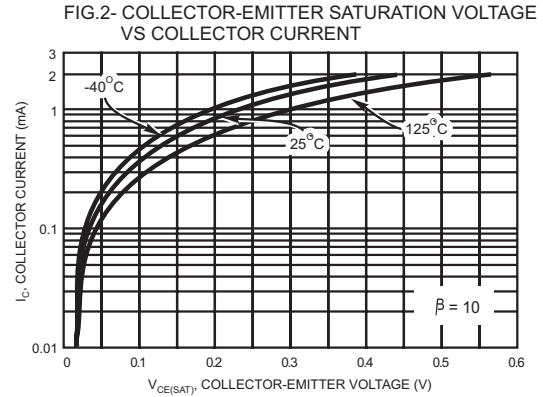
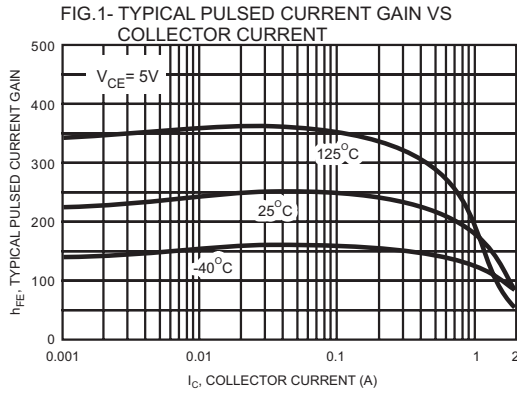


Dimensions in inches and (millimeters)

Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	BC817-16	BC817-25	BC817-40	Units
Collector-base breakdown voltage $I_C=10\mu\text{A}, I_E=0$	V_{CBO}	50			V
Collector-emitter breakdown voltage $I_C=10\text{mA}, I_B=0$	V_{CEO}	45			V
Collector current - continuous	I_C	0.5			A
Power dissipation	P_C	0.3			W
Emitter-base breakdown voltage $I_E=1\mu\text{A}, I_C=0$	V_{EBO}	5			V
Collector cut-off current $V_{CB}=45\text{V}, I_E=0$	I_{CBO}	0.1			μA
Emitter cut-off current $V_{EB}=4\text{V}, I_C=0$	I_{EBO}	0.1			μA
Collector-emitter saturation voltage $I_C=500\text{mA}, I_B=50\text{mA}$	$V_{CE(\text{Sat})}$	0.7			V
Base-emitter saturation voltage $I_C=500\text{mA}, I_B=50\text{mA}$	$V_{BE(\text{Sat})}$	1.2			V
Base-emitter voltage $V_{CE}=1\text{V}, I_C=500\text{mA}$	$V_{BE(\text{ON})}$	1.2			V
Collector capacitance $V_{CB}=10\text{V}, f=1\text{MHz}$	C_{ob}	10			pF
Transition frequency $V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	f_T	100			MHz
DC current gain	h_{FE}	100-250	160-400	250-600	
DC current gain $V_{CE}=1\text{V}, I_C=100\text{mA}$	$h_{FE(1)}$	100		600	
DC current gain $V_{CE}=1\text{V}, I_C=500\text{mA}$	$h_{FE(2)}$	>40	>40	>40	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150			$^\circ\text{C}$

RATINGS AND CHARACTERISTIC CURVES (BC817-16, BC817-25, BC817-40)



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