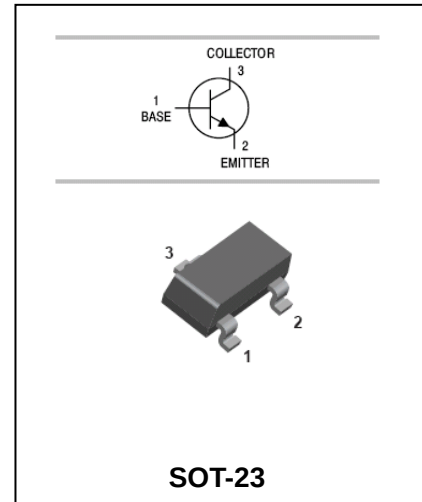


NPN General Purpose Amplifier**BC817-16/-25/-40****FEATURES**

- For general AF application.
- Complementary PNP type available BC807.
- High collector current, high current gain.
- Low collector-emitter saturation voltage.

**APPLICATIONS**

- General purpose medium power amplifier.
- Switching requiring collector currents up to 1.2mA.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC817-16	6A	SOT-23
BC817-25	6B	SOT-23
BC817-40	6C	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

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 -Continuous	500	mA
P_C	Collector Dissipation	300	mW
T_j, T_{stg}	Junction and Storage Temperature	-55to+150	°C

NPN General Purpose Amplifier**BC817-16/-25/-40****ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$ $I_E=0$	50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA$ $I_B=0$	45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\mu A$ $I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=45V$ $I_E=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$ $I_C=0$		0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V$ $I_C=100mA$ $V_{CE}=1V$ $I_C=100mA$	100 40	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$		1.2	V
Collector capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		10	pF
Transition frequency	f_T	$V_{CE}=5V$ $I_C=10mA$ $f=100MHz$	100		MHz

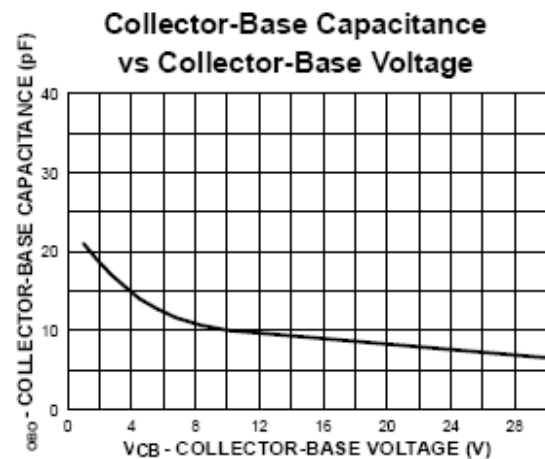
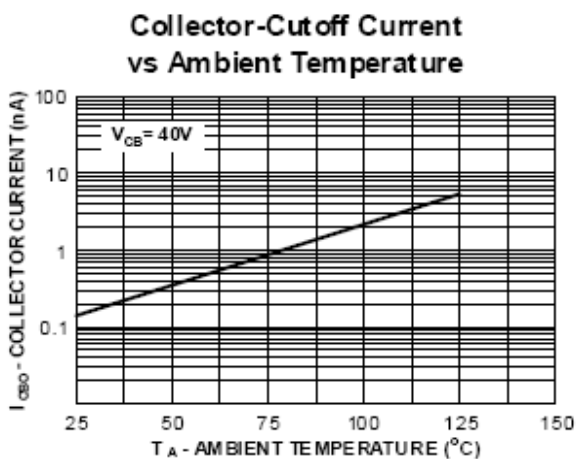
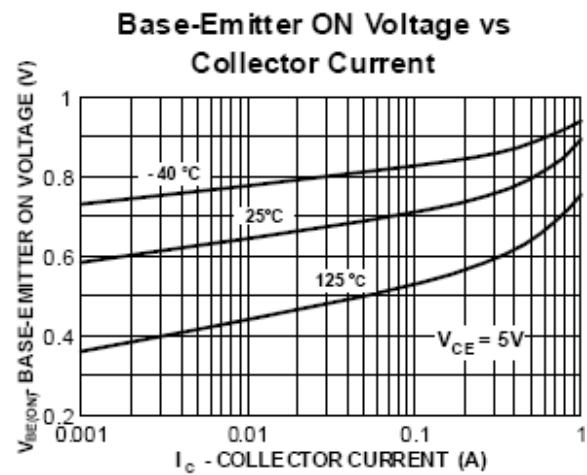
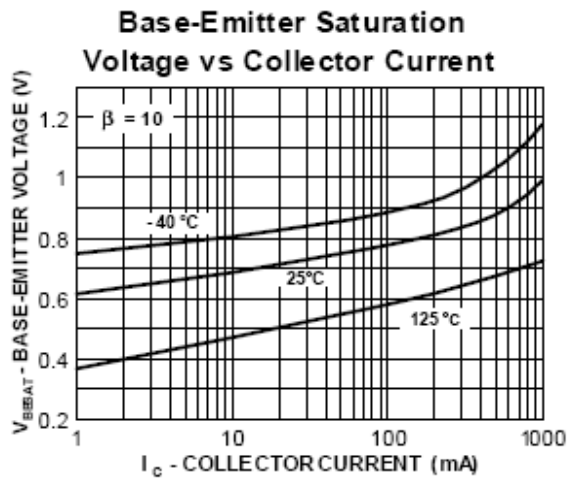
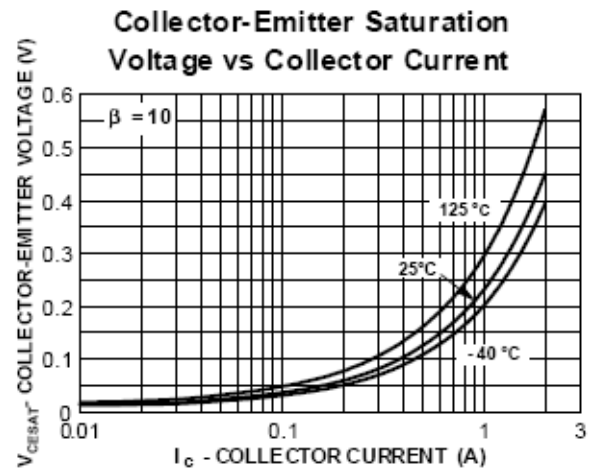
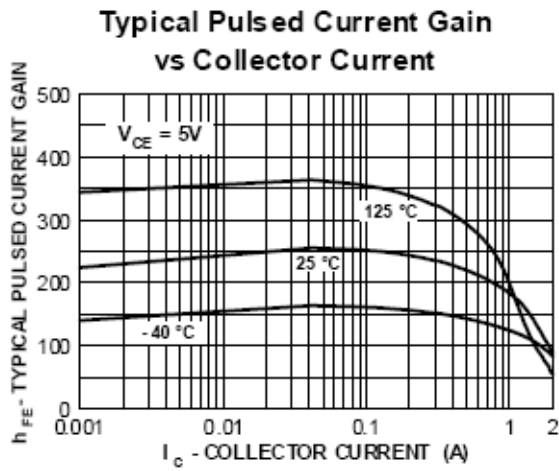
CLASSIFICATION OF $H_{FE(1)}$

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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

NPN General Purpose Amplifier

BC817-16/-25/-40



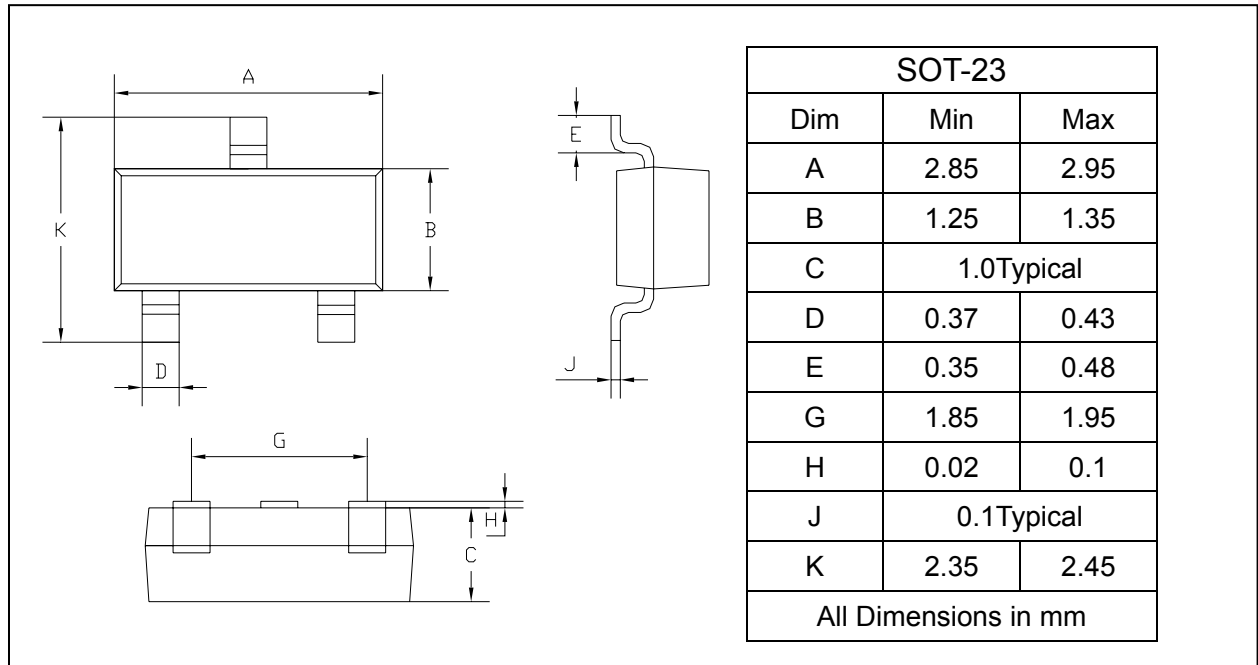
NPN General Purpose Amplifier

BC817-16/-25/-40

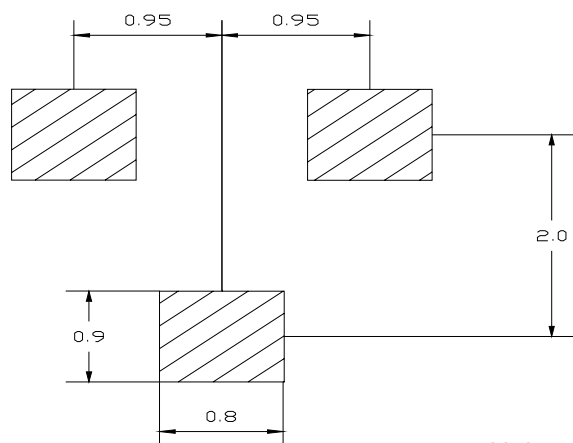
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BC817-16/-25/-40	SOT-23	3000/Tape&Reel