

NPN General Purpose Amplifier

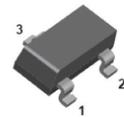
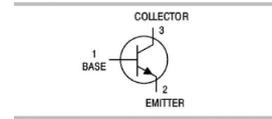


Features:

- 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



SOT-23

Maximum Ratings: @T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	50	V
Collector-Emitter Voltage	V _{CEO}	45	
Emitter-Base Voltage	V _{EBO}	5	
Collector Current -Continuous	I _C	500	mA
Collector Dissipation	P _C	300	mW
Junction and Storage Temperature	T _J , T _{stg}	-55 to 150	°C

Electrical Characteristics: @T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μA I _E = 0	50	-	V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10mA I _B = 0	45	-	
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 1μA I _C = 0	5	-	
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	
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

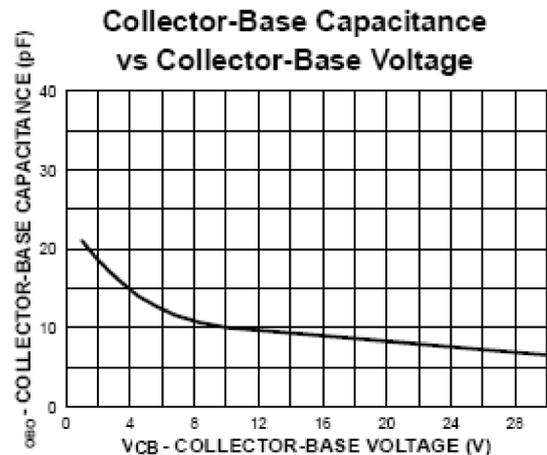
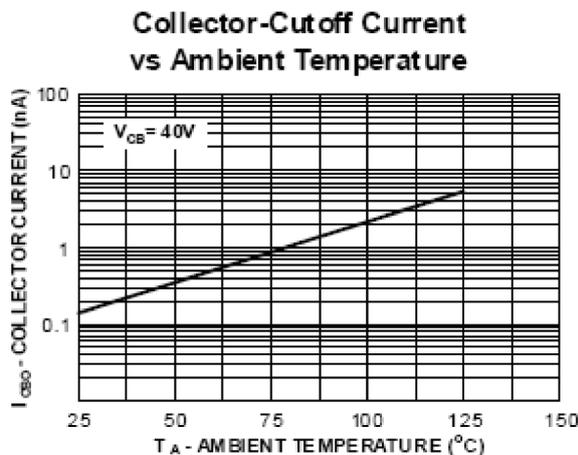
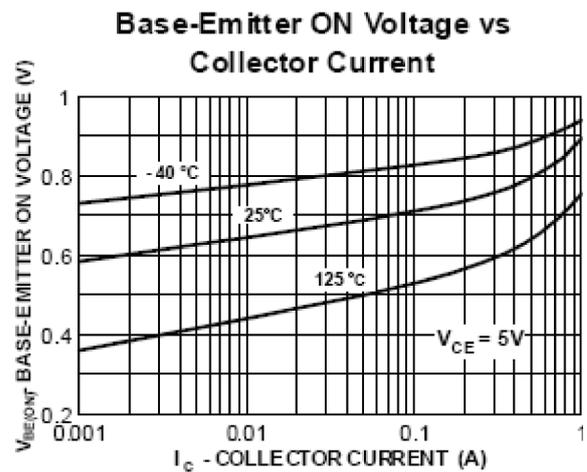
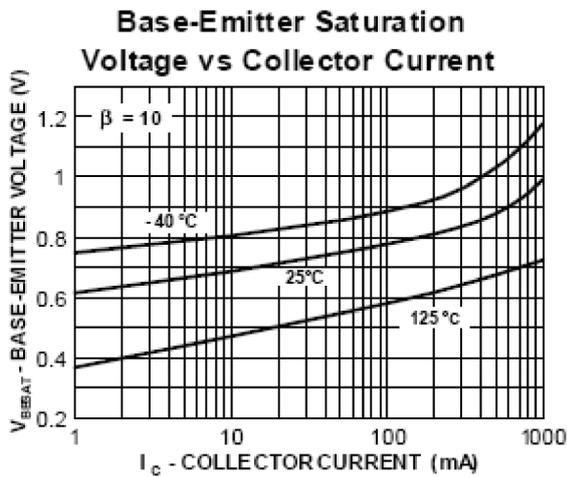
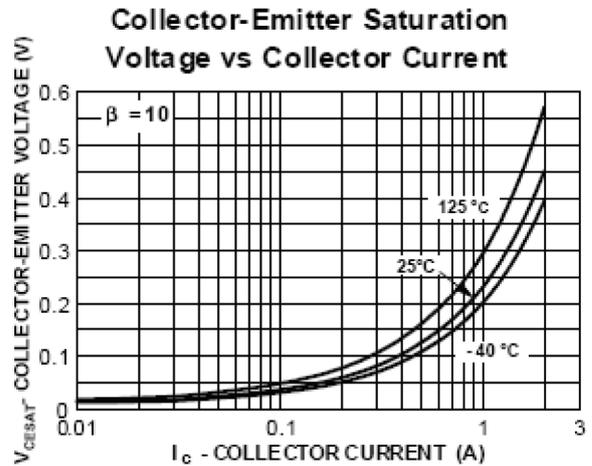
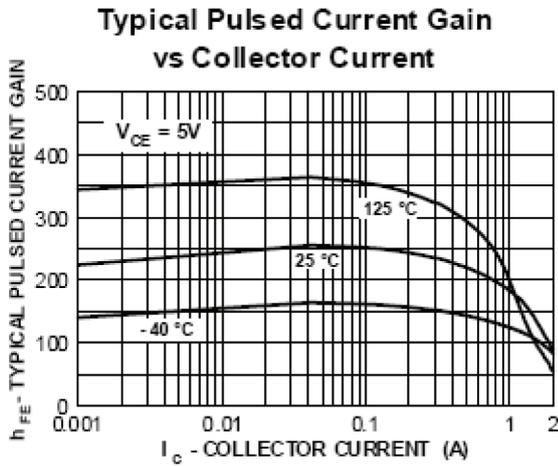
Classification of H_{FE(1)}

Rank	BC817-16
Range	100-250
Marking	6A

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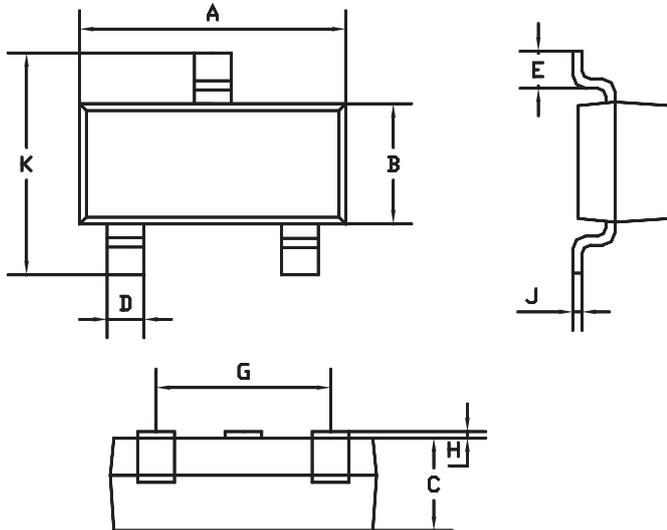
Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified



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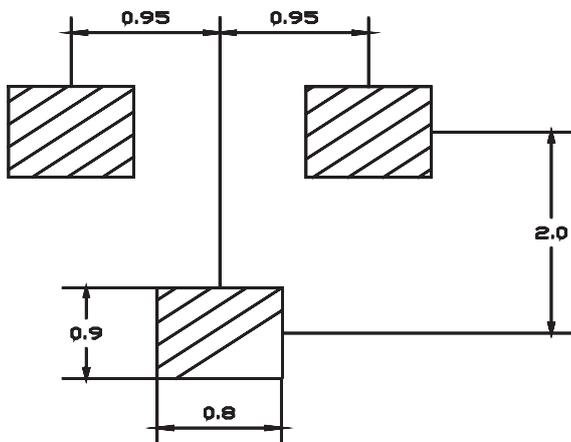
Package Outline:



SOT-23		
Dimension	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45

Dimensions : Millimetres

Soldering Footprint:



Dimensions : Millimetres

Part Number Table

Description	Part Number
PNP general purpose Amplifier	BC817-16-7-F

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