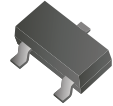


BC817-16-G/25-G/40-G (NPN)

RoHS Device



Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.

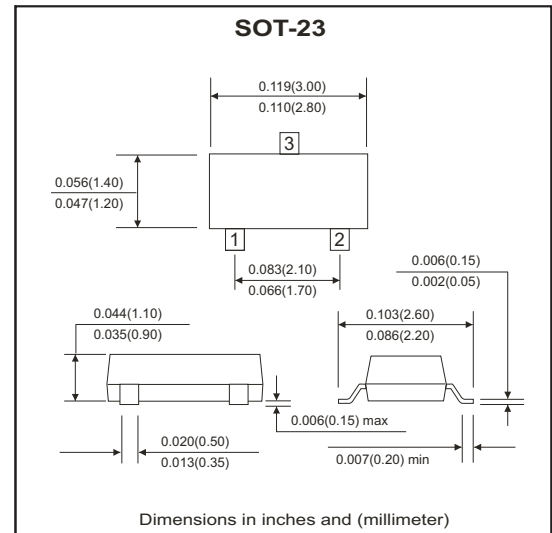
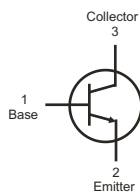
Marking:

BC817-16-G: 6A

BC817-25-G: 6B

BC817-40-G: 6C

Diagram:



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base voltage	V _{CBO}	50	V
Collector-Emitter voltage	V _{CEO}	45	V
Emitter-Base voltage	V _{EBO}	5	V
Collector current-continuous	I _c	0.5	A
Collector power dissipation	P _c	300	mW
Junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	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			V
Emitter-Base breakdown voltage	V _{(BR)EBO}	I _E =1μA, 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(1)}	V _{CE} =1V, I _c =100mA	100		600	
	h _{FE(2)}	V _{CE} =1V, I _c =500mA	40			
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
Base-Emitter voltage	V _{BE(ON)}	V _{CE} =1V, I _c =500mA			1.2	V
Collector capacitance	C _{ob}	V _{CB} =10V, f=100MHz		10		pF
Transition frequency	f _T	V _{CE} =-5V, I _c =-10mA, f=100MHz	100			MHz

Classification of hFE(1)

Rank	BC817-16-G	BC817-25-G	BC817-40-G
Range	100-250	160-400	250-600

RATING AND CHARACTERISTIC CURVES (BC817-16-G/25-G/40-G)

Fig.1 Typical Pulsed Current Gain vs. Collector Current

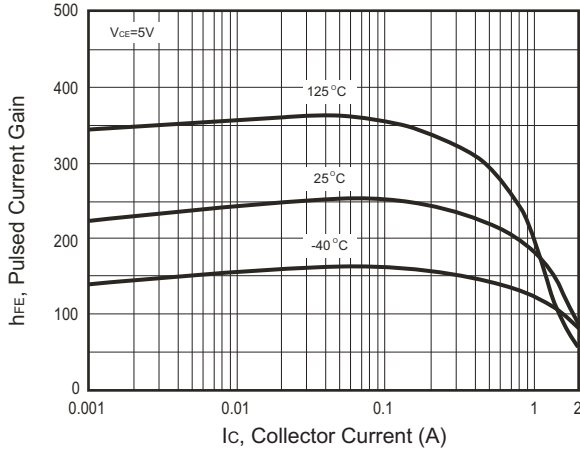


Fig.2 Collector-Emitter Saturation Voltage vs. Collector Current

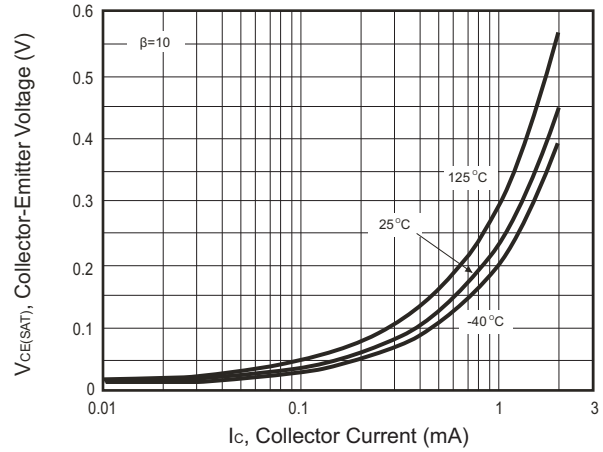


Fig.3 Base-Emitter Saturation Voltage vs. Collector Current

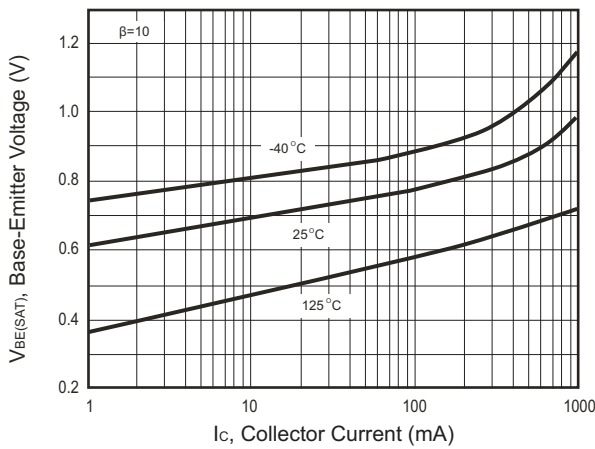


Fig.4 Base-Emitter ON Voltage vs. Collector Current

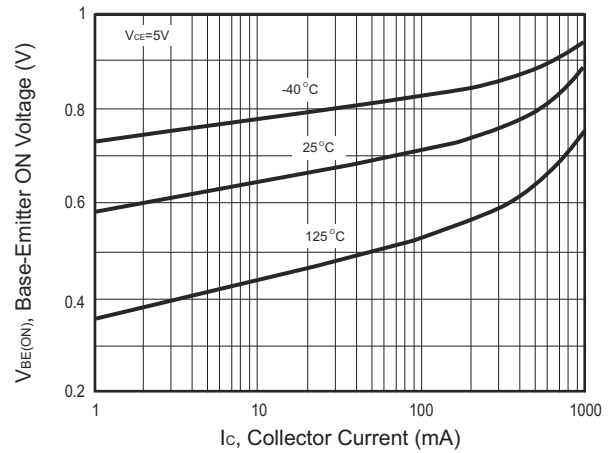


Fig.5 Collector Cut-off Current vs. Ambient Temperature

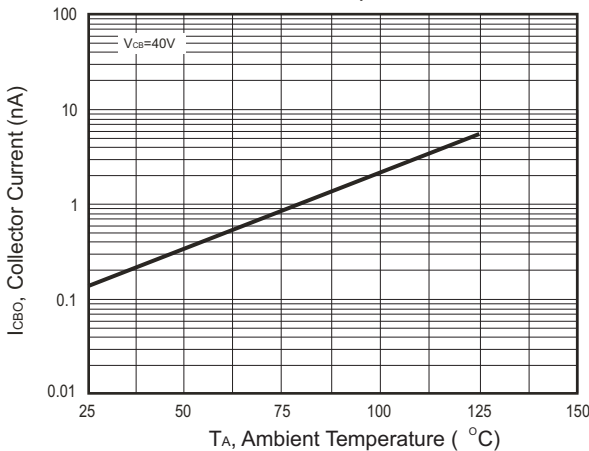
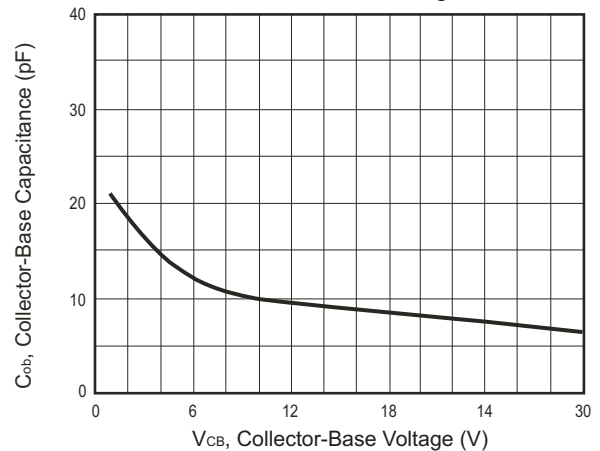


Fig.6 Collector-Base Capacitance vs. Collector-Base Voltage



RATING AND CHARACTERISTIC CURVES (BC817-16-G/25-G/40-G)

Fig.7 Gain Bandwidth Product vs. Collector Current

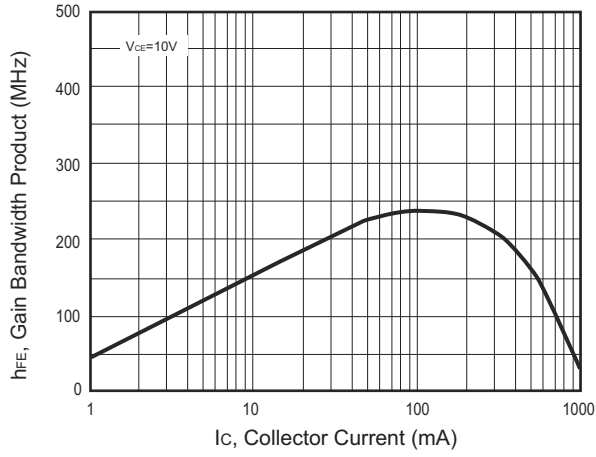
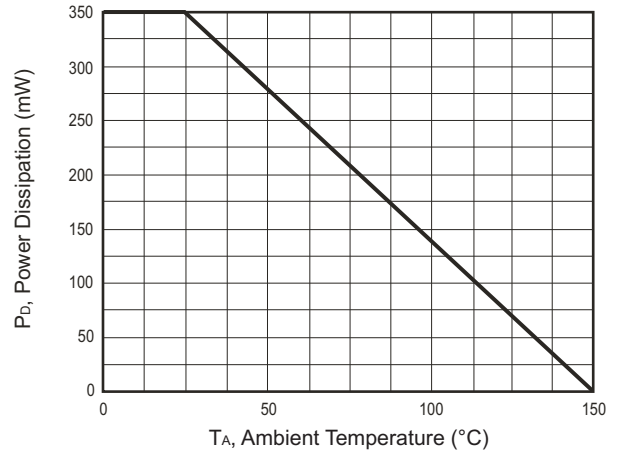


Fig.8 Power Dissipation vs. Ambient Temperature





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