

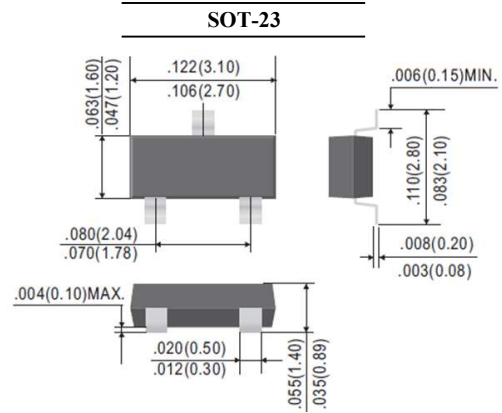
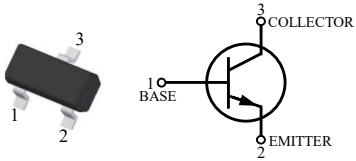


BC817 -16H / -25H / -40H

NPN TRANSISTORS

FEATURES

- For switching, AF driver and amplifier applications
- Suffix "H" indicates Halogen-free parts, ex. BC817-16H



Dimensions in inches and (millimeter)

Maximum Ratings ($T_A = 25^\circ\text{C}$ 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	I_C	500	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain	-16H $V_{CE}=1\text{V}, I_C=100\text{mA}$	h_{FE}	100	-	250	-
	-25H		160	-	400	
	-40H		250	-	600	
	$V_{CE}=1\text{V}, I_C=500\text{mA}$		40	-	-	
Collector Base Cutoff Current	$V_{CB}=20\text{V}$	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current	$V_{EB}=5\text{V}$	I_{EBO}	-	-	100	nA
Collector Saturation Voltage	$I_C=500\text{mA}, I_B=50\text{mA}$	$V_{CE(sat)}$	-	-	0.7	V
Base Saturation Voltage	$I_C=500\text{mA}, V_{CE}=1\text{V}$	$V_{BE(on)}$	-	-	1.2	V
Gain Bandwidth Product	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=50\text{MHz}$	f_T	100	-	-	MHz
Collector Output Capacitance	$V_{CB}=10\text{V}, f=1\text{MHz}$	C_{ob}	-	5	-	pF



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RATINGS AND CHARACTERISTIC CURVES

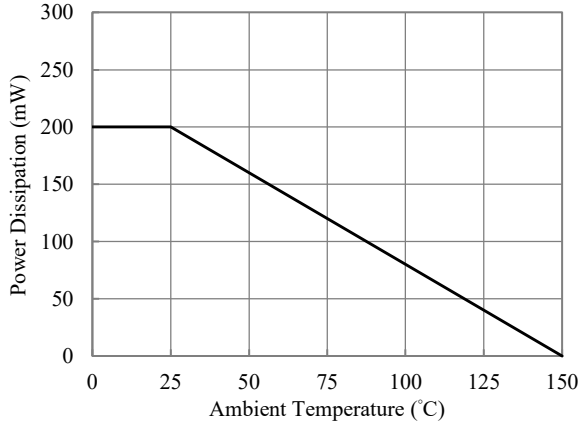


Fig. 1 Power Derating Curves

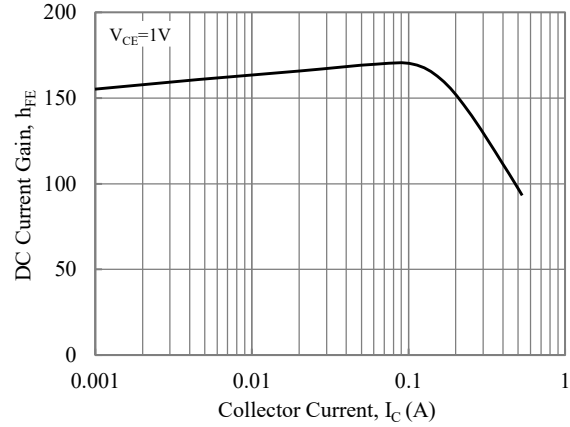


Fig. 2 Current Gain vs. Collector Current

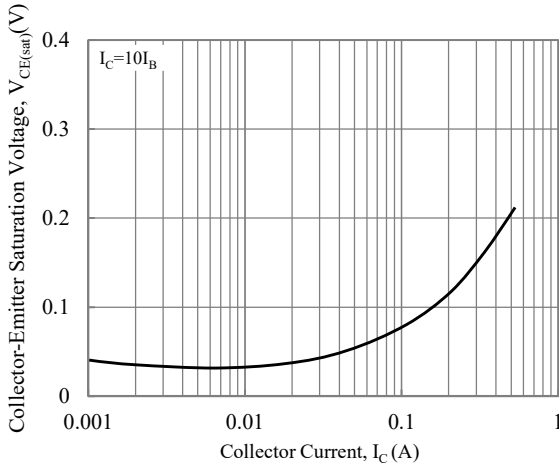


Fig. 3 Collector-Emitter Saturation Voltage vs. Collector Current

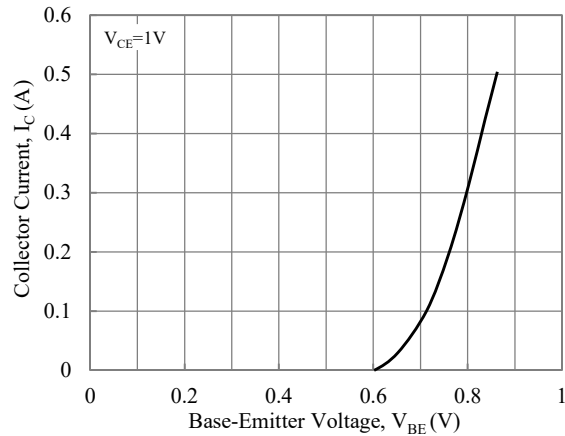


Fig. 4 Base-Emitter Voltage vs. Collector Current