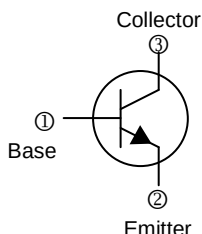


RoHS Compliant Product

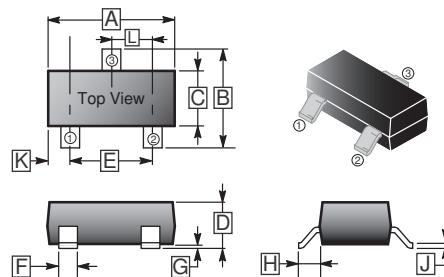
A suffix of "-C" specifies halogen & lead-free

FEATURES

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary types: BC807 (PNP)



SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

ABSOLUTE MAXIMUM RATINGS at $T_A = 25^\circ\text{C}$

PARAMETER	SYMBOL	RATINGS	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	500	mA
Collector Power Dissipation	P_C	300	mW
Junction & Storage Temperature	T_J, T_{STG}	150, -55 ~ +150	$^\circ\text{C}$

CHARACTERISTICS at $T_A = 25^\circ\text{C}$

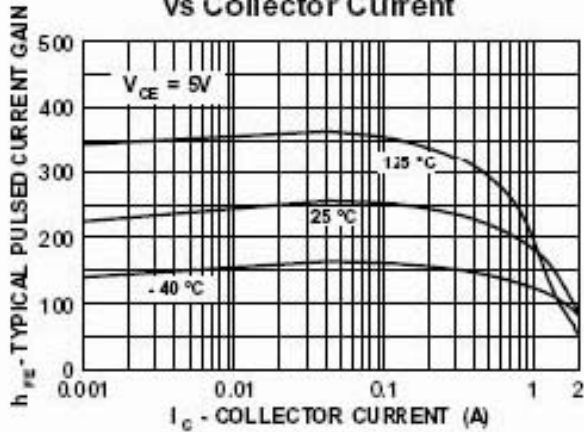
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector-base Breakdown Voltage	V_{CBO}	50	-	-	V	$I_C = 10 \mu\text{A}, I_E = 0$
Collector-emitter Breakdown Voltage	V_{CEO}	45	-	-	V	$I_C = 10 \text{ mA}, I_B = 0$
Emitter-base Breakdown Voltage	V_{EBO}	5	-	-	V	$I_E = 1 \mu\text{A}, I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	0.1	μA	$V_{CB} = 45\text{V}, I_E = 0$
Emitter Cut-off Current	I_{EBO}	-	-	0.1	μA	$V_{EB} = 4\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	600		$V_{CE} = 1 \text{ V}, I_C = 100 \text{ mA}$
DC Current Gain	$h_{FE(2)}$	40	-	-		$V_{CE} = 1 \text{ V}, I_C = 500 \text{ mA}$
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.7	V	$I_C = 500\text{mA}, I_B = 50 \text{ mA}$
Base-emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1.2	V	$I_C = 500\text{mA}, I_B = 50 \text{ mA}$
Base-emitter Voltage	V_{BE}	-	-	1.2	V	$V_{CE} = 1\text{V}, I_C = 500\text{mA}$
Collector Capacitance	C_{ob}	-	10	-	pF	$V_{CB} = 10\text{V}, f=1\text{MHz}$
Transition Frequency	f_T	100	-	-	MHz	$V_{CE} = 5 \text{ V}, I_C = 10 \text{ mA}, f = 100\text{MHz}$

CLASSIFICATION OF $h_{FE(1)}$

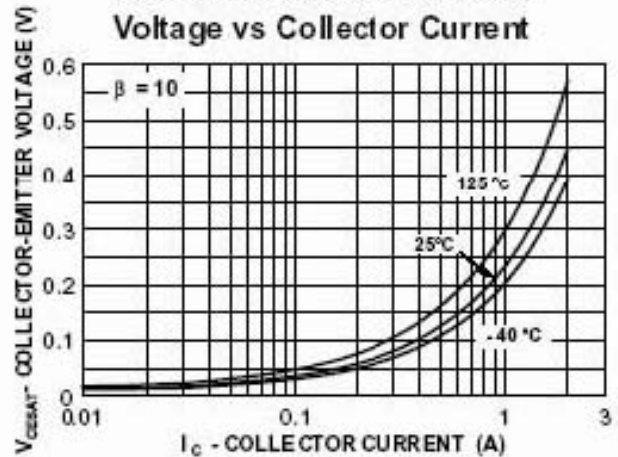
Rank	BC817-16	BC817-25	BC817-40
Range	100 - 250	160 - 400	250 - 600
Marking	6A	6B	6C

CHARACTERISTIC CURVES

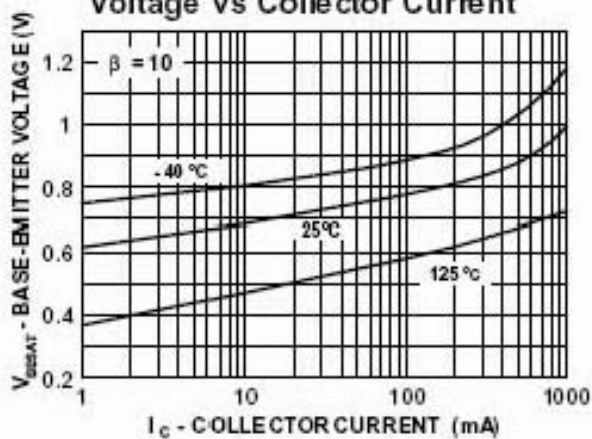
**Typical Pulsed Current Gain
vs Collector Current**



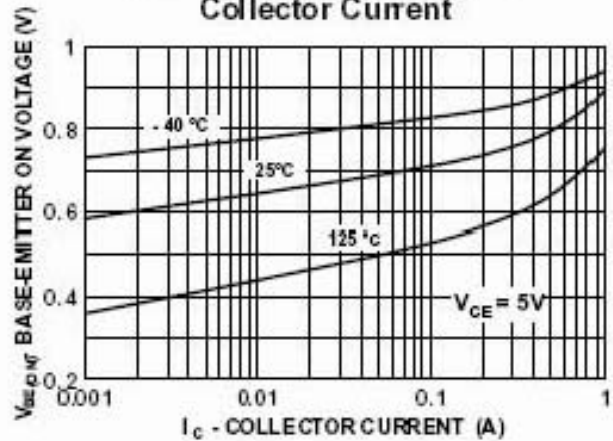
**Collector-Emitter Saturation
Voltage vs Collector Current**



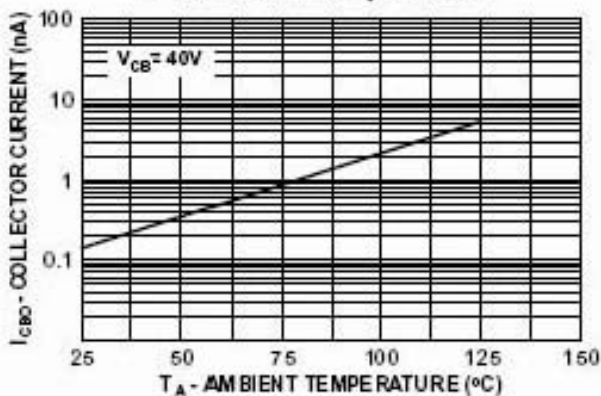
**Base-Emitter Saturation
Voltage vs Collector Current**



**Base-Emitter ON Voltage vs
Collector Current**



**Collector-Cutoff Current
vs Ambient Temperature**



**Collector-Base Capacitance
vs Collector-Base Voltage**

