Elektronische Bauelemente

BC817 -16W, -25W, -40W

500 mA, 50 V

NPN Plastic Encapsulate Transistor

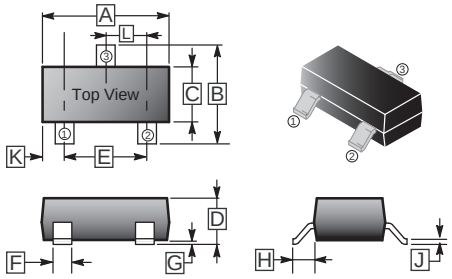
RoHS Compliant Product

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

FEATURES

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

SOT-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			

PACKAGE INFORMATION

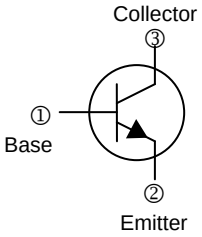
Weight: 0.0074 g (approximately)

MARKING

BC817-**16**W: 6**A**

BC817-**25**W: 6**B**

BC817-**40**W: 6**C , YM**



ABSOLUTE MAXIMUM RATINGS at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Junction, Storage Temperature	T_J, T_{STG}	-55 ~ +150	℃

CHARACTERISTICS at Ta = 25°C

Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Collector-base Breakdown Voltage	BV_{CBO}	50	-	V	I_C = 10 uA, I_E = 0
Collector-emitter Breakdown Voltage	BV_{CEO}	45	-	V	I_C = 10 mA, I_B = 0
Emitter-base Breakdown Voltage	BV_{EBO}	5	-	V	I_E = 1 uA, I_C = 0
Collector Cut-off Current	I_{CBO}	-	0.1	uA	V_{CB} = 20V, I_E = 0
Emitter Cut-off Current	I_{EBO}	-	0.1	uA	V_{EB} = 5V, I_C = 0
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	-	0.7	V	I_C = 500mA, I_B = 50 mA
Base-emitter Saturation Voltage	$V_{BE(sat)}$	-	1.2	V	I_C = 500mA, I_B = 50 mA
Base-emitter Voltage	$V_{BE(on)}$		1.2	V	V_{CE} = 1V, I_C = 500mA
DC Current Gain	$h_{FE(1)}$	100	600		V_{CE} = 1 V, I_C = 100 mA
DC Current Gain	$h_{FE(2)}$	40	-		V_{CE} = 1 V, I_C = 500 mA
Transition Frequency	f_T	100	-	MHz	V_{CE} = 5 V, I_C = 10 mA, f = 100MHz
Collector Capacitance	C_C	-	5	pF	V_{CB} = 10V, f=1MHz

CLASSIFICATION OF $h_{FE(1)}$

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

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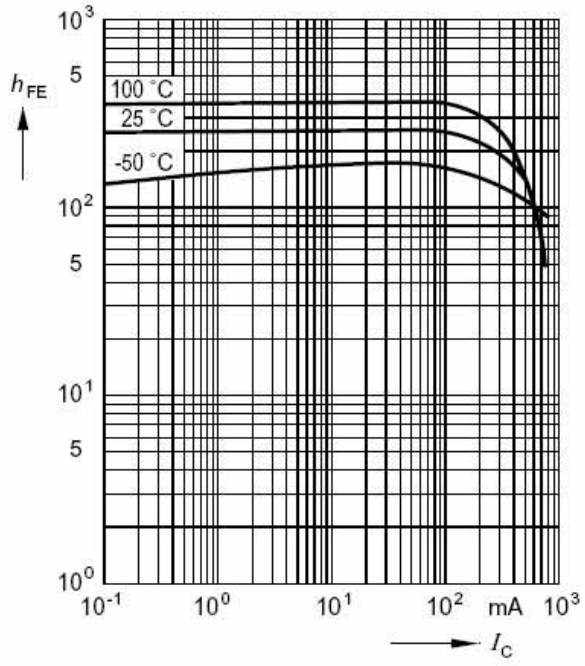
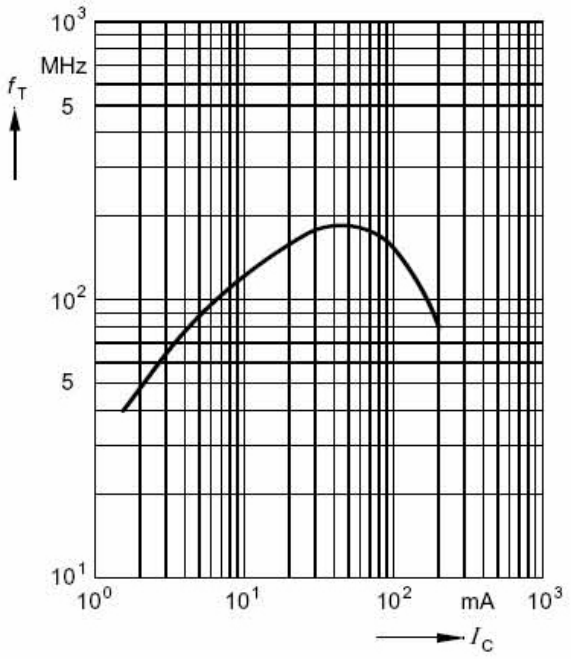
CHARACTERISTIC CURVES



Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, $h_{FE} = 10$



Collector-emitter saturation voltage

$I_C = f(V_{CEsat})$, $h_{FE} = 10$