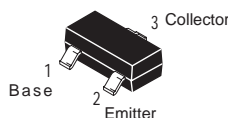


RoHS Compliant Product

A suffix of "-C" specifies halogen-free & RoHS compliant

## FEATURES

- Ideally suited for automatic insertion
- Epitaxial planar die construction
- Complementary to BC817 (NPN Type)



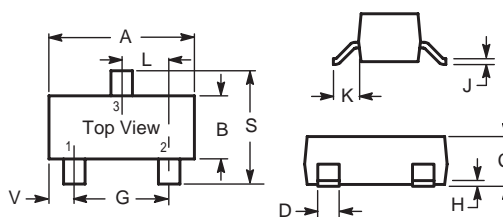
SOT-23		
Dim	Min	Max
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

## MARKING

BC807-16:5A;

BC807-25:5B;

BC807-40:5C



## 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	$T_J, T_{STG}$	+150, -55 ~ +150	°C

## CHARACTERISTICS at Ta = 25°C

Symbol	Min.	Max.	Unit	Test Conditions
$BV_{CBO}$	-50	-	V	$I_C = -10 \mu A, I_E = 0$
$BV_{CEO}$	-45	-	V	$I_C = -10 \text{ mA}, I_B = 0$
$BV_{EBO}$	-5	-	V	$I_E = -1 \mu A, I_C = 0$
$I_{CBO}$	-	-0.1	$\mu A$	$V_{CB} = -45V, I_E = 0$
$I_{CEO}$	-	-0.2	$\mu A$	$V_{CE} = -40V, I_B = 0$
$I_{EBO}$	-	-0.1	$\mu A$	$V_{EB} = -4V, I_C = 0$
$V_{CE(sat)}$	-	-0.7	V	$I_C = -500\text{mA}, I_B = -50 \text{ mA}$
$V_{BE(sat)}$	-	-1.2	V	$I_C = -500\text{mA}, I_B = -50 \text{ mA}$
$h_{FE(1)}$	807-16: 100 807-25: 160 807-40: 250	250 400 600		$V_{CE} = -1 \text{ V}, I_C = -100 \text{ mA}$
fT	100	-	MHz	$V_{CE} = -5 \text{ V}, I_C = -10 \text{ mA}, f = 100\text{MHz}$

**CHARACTERISTIC CURVES**

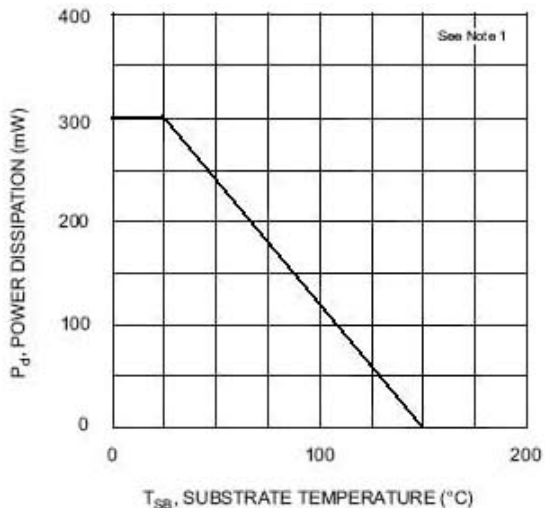


Fig. 1, Power Derating Curve

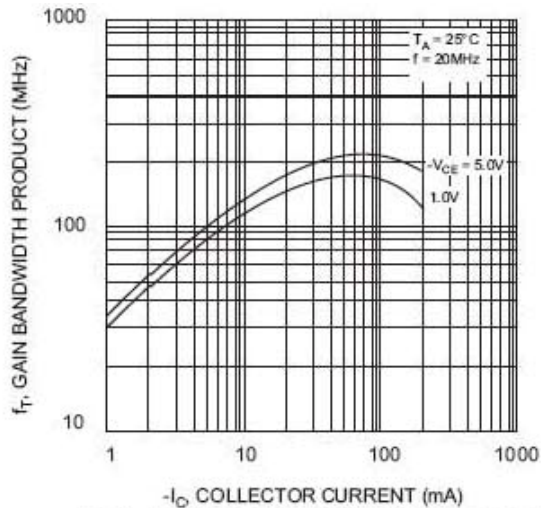


Fig. 2, Gain-Bandwidth Product vs. Collector Current

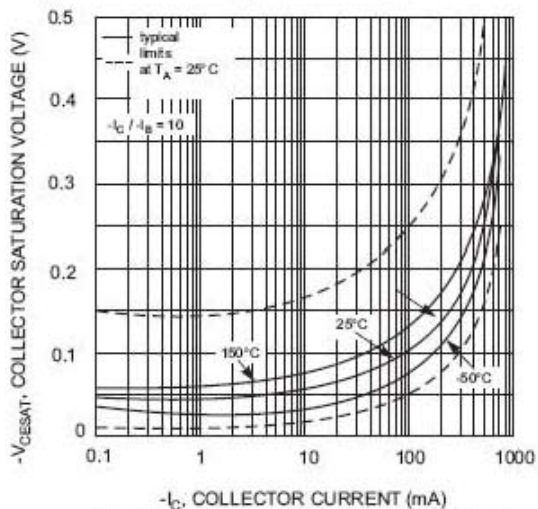


Fig. 3, Collector Sat Voltage vs. Collector Current

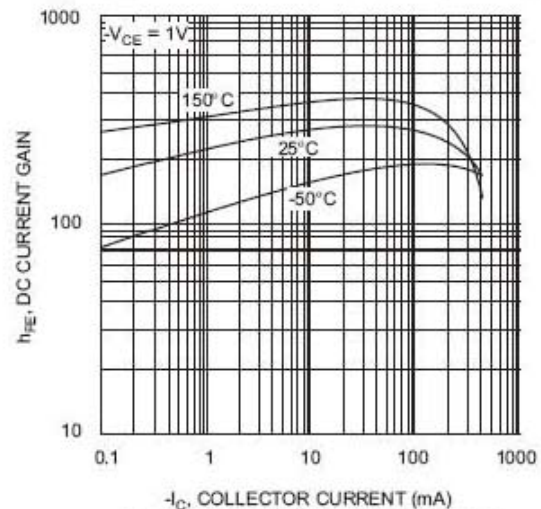


Fig. 4, DC Current Gain vs. Collector Current

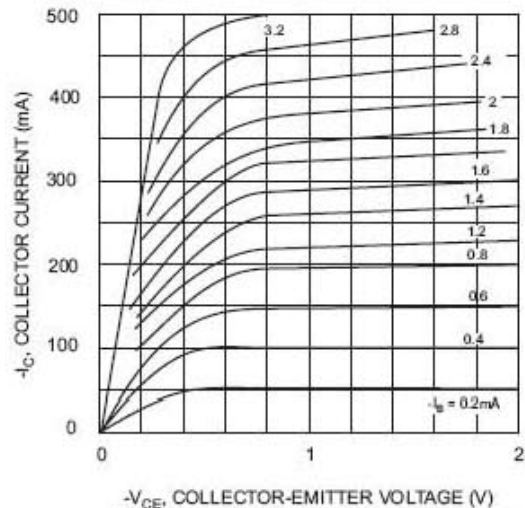


Fig. 5, Typical Emitter-Collector Characteristics

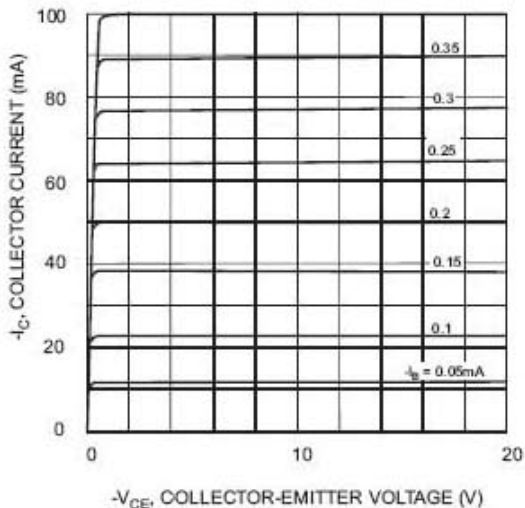


Fig. 6, Typical Emitter-Collector Characteristics