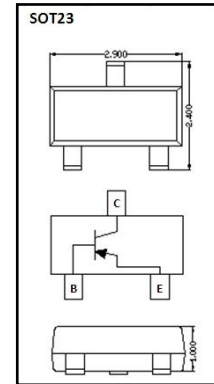


DATA SHEET

BC807 TRANSISTOR (PNP)

- ◇ Capable of 300mWatts of Power Dissipation and 500mA I_c
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-50	V
V_{CE0}	Collector-Emitter Voltage	-45	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_c	Collector Current	-500	mA
P_c	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS @ 25°C UNLESS OTHERWISE SPECIFIED

Symbol	Parameter	Test Conditions	Min	Max	Units
V_{CE0}	Collector-Emitter Breakdown Voltage	$I_c=-10\text{mA}$, $I_B=0$	-45		V
V_{CB0}	Collector-Base Breakdown Voltage	$I_c=-10\mu\text{A}$, $I_E=0$	-50		V
V_{EB0}	Emitter-Base Breakdown Voltage	$I_E=-10\mu\text{A}$, $I_c=0$	-5.0		V
I_{CB0}	Collector Cutoff Current	$V_{CB}=-45\text{V}$, $I_E=0\text{V}$		-100	nA
I_{CE0}	Collector Cutoff Current	$V_{CE}=-40\text{V}$, $I_E=0\text{V}$		-200	nA
I_{EB0}	Collector Cutoff Current	$V_{EB}=-4\text{V}$, $V_{BE}=0\text{V}$		-100	nA

$h_{FE(1)}$	DC Current Gain*	($I_C=-100mA$, $V_{CE}=-1V$) BC807-16 BC807-25 BC807-40	100 160 250	250 400 600	
$h_{FE(2)}$	DC Current Gain*	($I_C=-500mA$, $V_{CE}=-1V$)	40		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-500mA$, $I_B=-50mA$		0.7	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=-500mA$, $I_B=-50mA$		1.2	V
f_T	Current Gain-Bandwidth Product	$I_C=-10mA$, $V_{CE}=-5.0V$, $f=100MHz$	100		MHZ

CLASSIFICATION OF h_{fe}

Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600
Marking	5A	5B	5C

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BC807	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline : SOT23

The diagram illustrates the SOT23 package outline in three views: top, side, and cross-section. The top view shows a rectangular package with a central body and two side leads. Dimensions A, B, C, D, E, and F are indicated. The side view shows the package height and lead thickness. The cross-section view shows the internal structure and lead profile. Dimensions G, H, J, and K are indicated.

SOT23 Package Outline

Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:

1. Halogen free ,EMC
2. Pb free solder
3. Lead thickness solder plating
4. Lead frame CAC-5
5. Other Tolerance ± 0.05
6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
7. Unit :mm