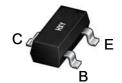


## **Features**

- Collector Current: I<sub>C</sub>=-0.5A
- Power Dissipation of 300mw



# **Package Marking and Ordering Information**

Product ID	Pack	Qty(PCS)
BC807-16/25/40	SOT-23	3000





# Maxmim Ratings (Ta=25 <sup>°C</sup> unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-45	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>c</sub>	-500	mA
Collector Power Dissipation	P <sub>c</sub>	300	mW
Thermal Resistance From Junction To Ambient	R <sub>OJA</sub>	417	°C/W
Junction Temperature	T <sub>j</sub>	150	℃
Storage Temperature	T <sub>stg</sub>	-55∼+150	℃

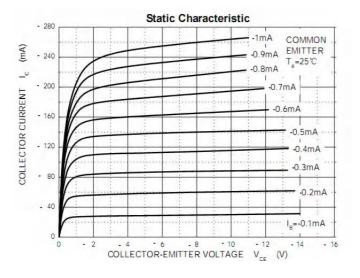
# Classifiction Of hFE

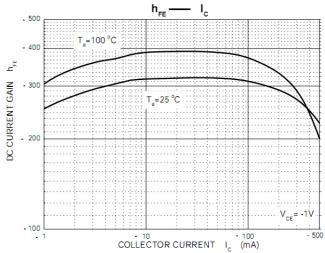
Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600
Marking	5A	5B	5C

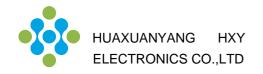
## Electrcal Charcteristics (T<sub>a</sub>=25 <sup>°</sup>C unless otherwise specified)

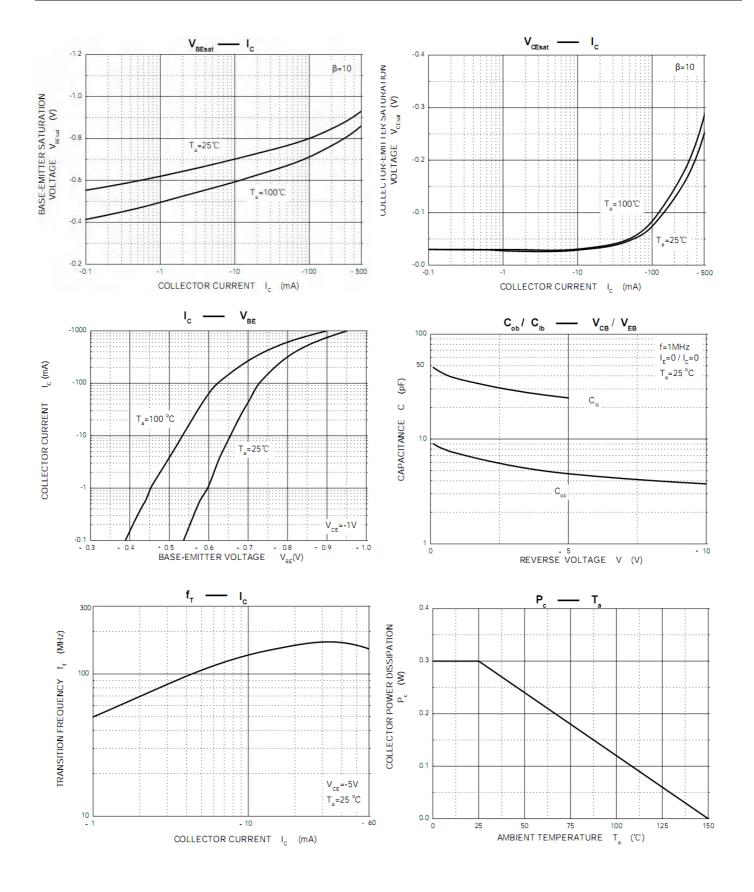
-					,
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> = -10μΑ, I <sub>E</sub> =0	-50		V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-45		V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = -1μΑ, I <sub>C</sub> =0	-5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -45V, I <sub>E</sub> =0		-0.1	μА
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4 V, I <sub>C</sub> =0		-0.1	μA
DC current gain	hFE(1)	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA	100	600	
<u> </u>	hFE(2)	V <sub>CE</sub> = -1V, I <sub>C</sub> = -500mA	40		
Collector-emitter saturation voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =-500mA, I <sub>B</sub> = -50mA		-0.7	V
Base-emitter saturation voltage	V <sub>BE</sub> (sat)	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-1.2	V
Transition frequency	f <sub>⊤</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA f=100MHz	100		MHz

# **Typical Characteristics**



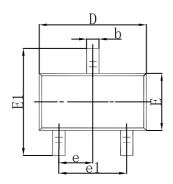


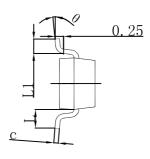


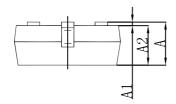




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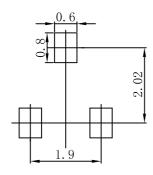






Cumbal	Dimensions In Millimeters		Dimensions In Inches		
Symbol	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 TYP		0.037 TYP		
e1	1.800	2.000	0.071	0.079	
L	0.550 REF		0.022 REF		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

# **SOT-23 Suggested Pad Layout**



- Note:
  1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
  3.The pad layout is for reference purposes only.

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