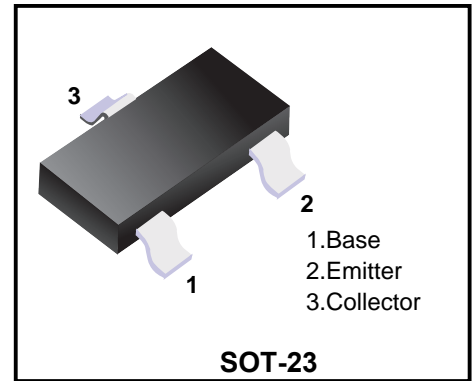


**NPN Transistors**



**Features**

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

**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	50	V
Collector - Emitter Voltage	V <sub>CEO</sub>	45	
Emitter - Base Voltage	V <sub>EBO</sub>	5	
Collector Current - Continuous	I <sub>c</sub>	0.5	A
Collector Power Dissipation	P <sub>c</sub>	0.3	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to 150	

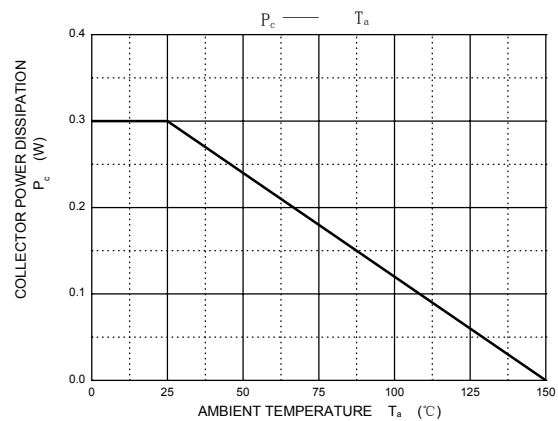
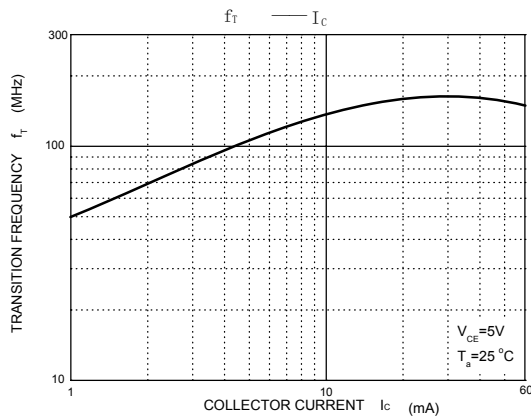
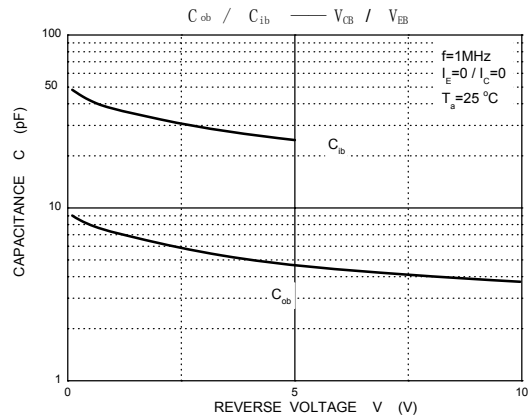
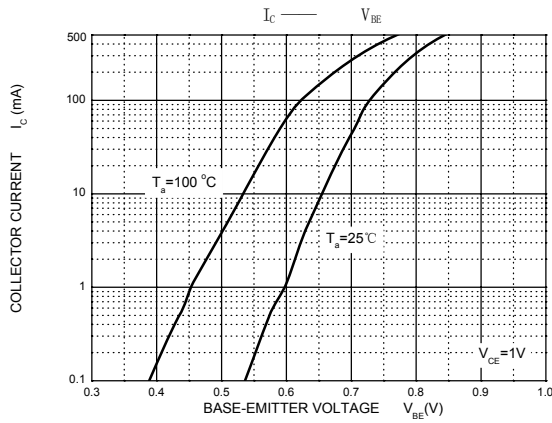
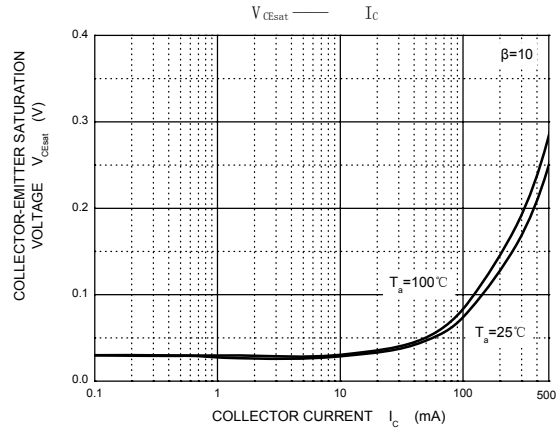
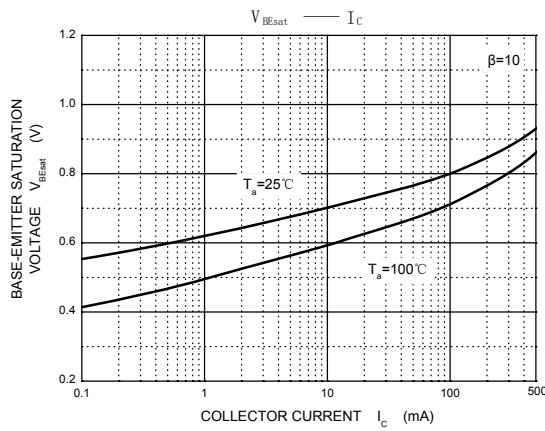
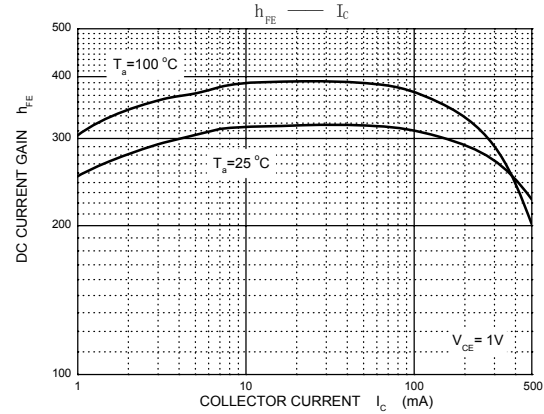
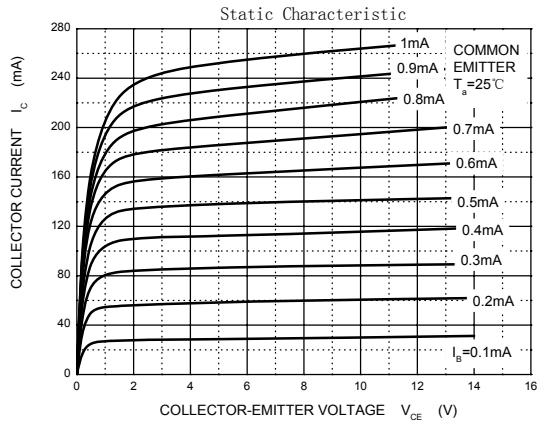
**Electrical Characteristics (Ta=25°C unless otherwise specified.)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 100 μA, I <sub>E</sub> = 0	50			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>c</sub> = 10 mA, I <sub>B</sub> = 0	45			
Emitter - base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100 μA, I <sub>C</sub> = 0	5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 45 V, I <sub>E</sub> = 0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500 mA, I <sub>B</sub> =50mA			0.7	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50mA			1.2	
Base - emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 500mA			1.2	
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 100mA	100		630	
	h <sub>FE(2)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 500mA	40			
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f=1MHz		10		pF
Transition frequency	f <sub>t</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA, f=100MHz	100			MHz

**h<sub>FE</sub> Classification**

Type	BC817-16	BC817-25	BC817-40
Range	100-250	160-400	250-630
Marking	6A	6B	6C

Typical Characteristics



**Ordering information**

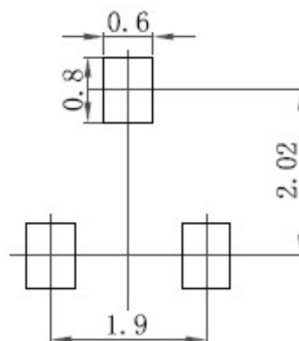
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-23**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

**The recommended mounting pad size**



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