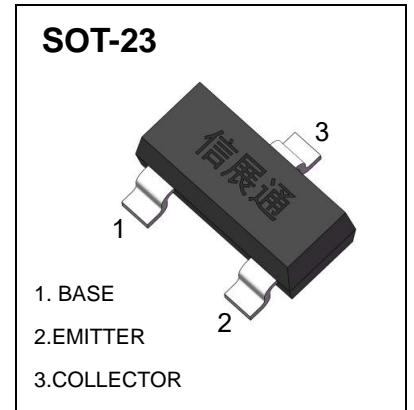




FEATURES

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



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	45	V
V _{EBO}	Emitter-Base Voltage	5	V
I _c	Collector Current	500	mA
P _c	Collector Power Dissipation	300	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	417	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

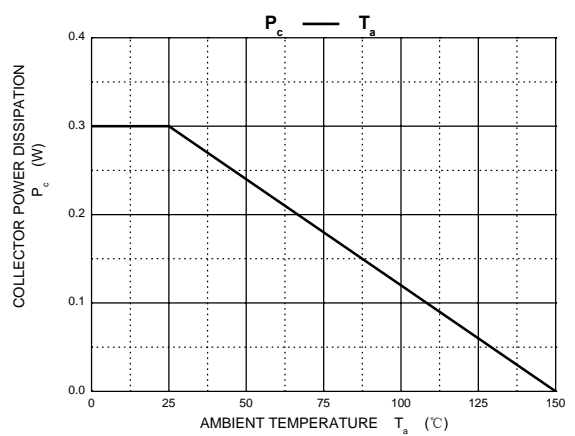
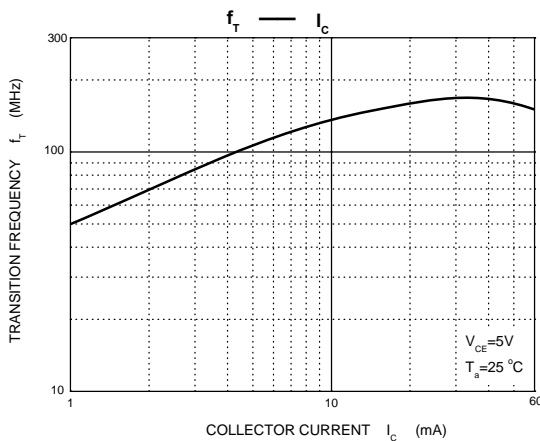
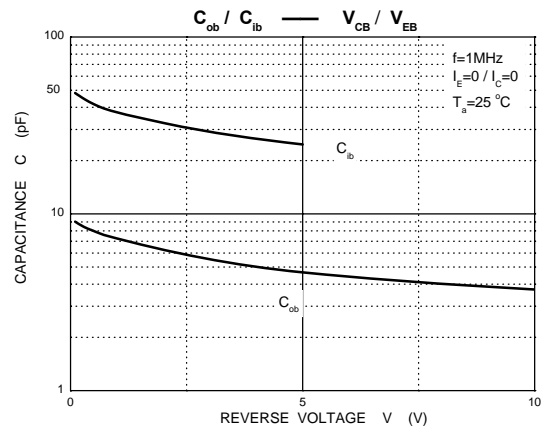
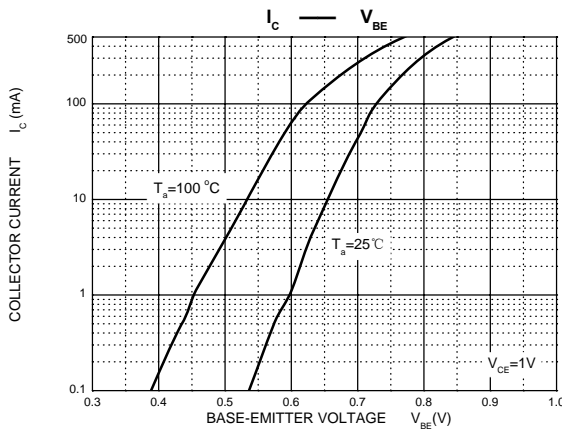
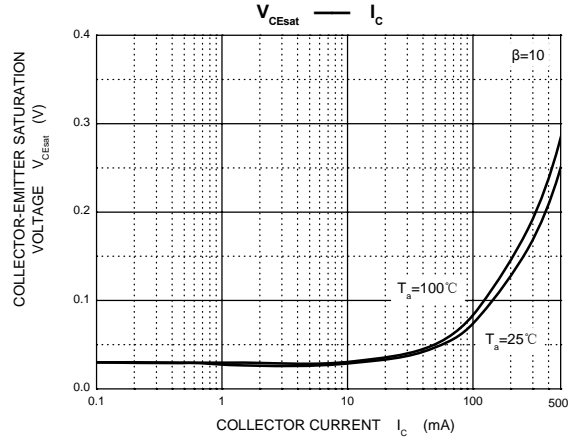
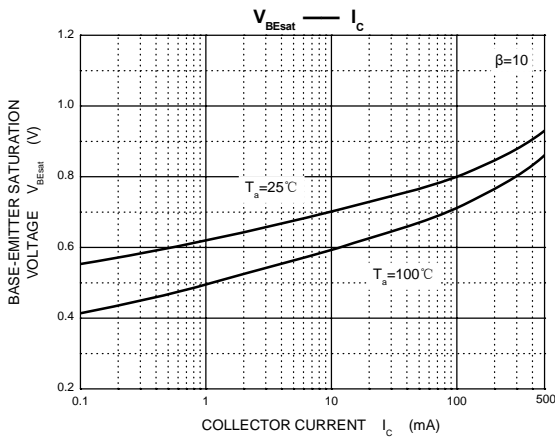
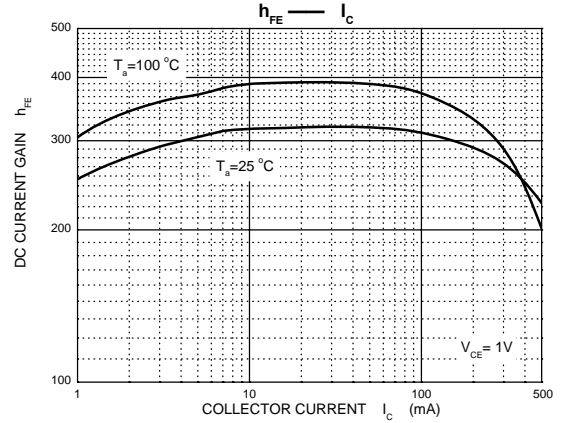
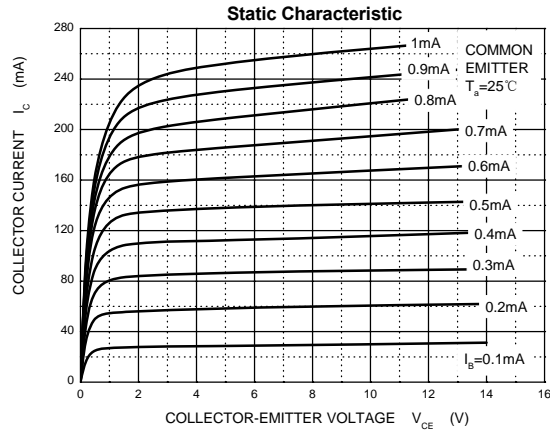
Symbol	Parameter	Test Conditions	A in	Typ	A ax	Unit
V _{CB0}	Collector-Base Voltage	I _C = 10μA, I _E = 0	50			V
V _{CEO}	Collector-Emitter Voltage	I _C = 10mA, I _B = 0	45			V
V _{EBO}	Emitter-Base Voltage	I _E = 1μA, I _C = 0	5			V
I _{CB0}	Collector-Base Current	V _{CB} = 45 V, I _E = 0			0.1	μA
I _{EBO}	Emitter-Base Current	V _{EB} = 4V, I _C = 0			0.1	μA
h _{FE(1)}	DC Current Gain	V _{CE} = 1V, I _C = 100mA	100		600	
h _{FE(2)}	DC Current Gain	V _{CE} = 1V, I _C = 500mA	40			
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 500mA, I _B = 50mA			0.7	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 500mA, I _B = 50mA			1.2	V
V _{BE}	Base-Emitter Voltage	V _{CE} = 1 V, I _C = 500mA			1.2	V
C _{ob}	Output Capacitance	V _{CB} = 10V, f = 1MHz		10		pF
f _T	Transition Frequency	V _{CE} = 5 V, I _C = 10mA, f = 100MHz	100			MHz

CLASSIFICATION OF h_{FE(1)}

Symbol	67, %±!	67, %±!&	67, %±!(\$
V _{CE(sat)}	%%\$!& \$	%\$!(\$ \$	& \$!* \$ \$
A U _F]b[*5	*6	*7

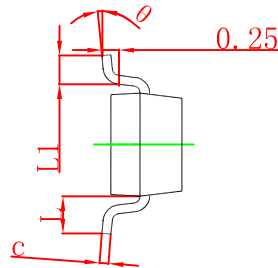


Typical Characteristics



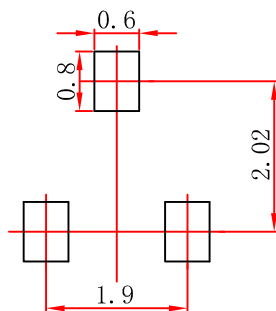


SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	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
c	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
e	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.