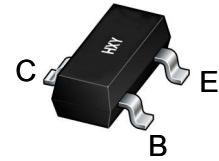




FEATURES

- Collector Current: $I_C = -0.5A$
- Power Dissipation of 300mw

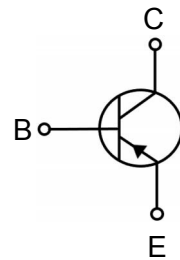


SOT-23

Package Marking and Ordering Information

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

Marking		
BC87-16	BC87-25	BC87-40
100-250	160-400	250-600
5A	5B	5C



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

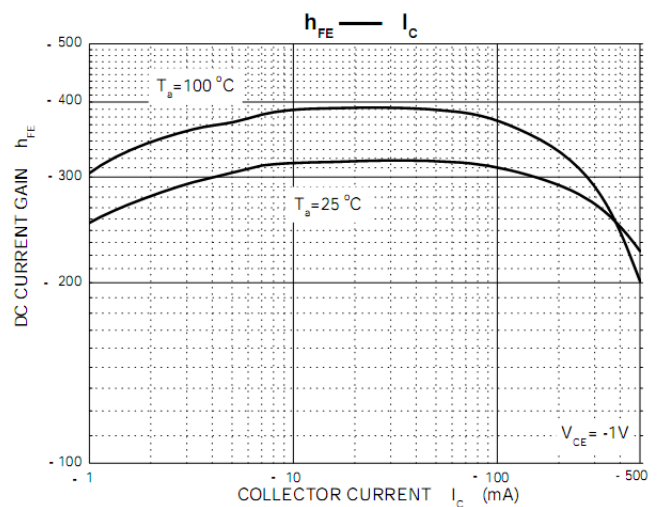
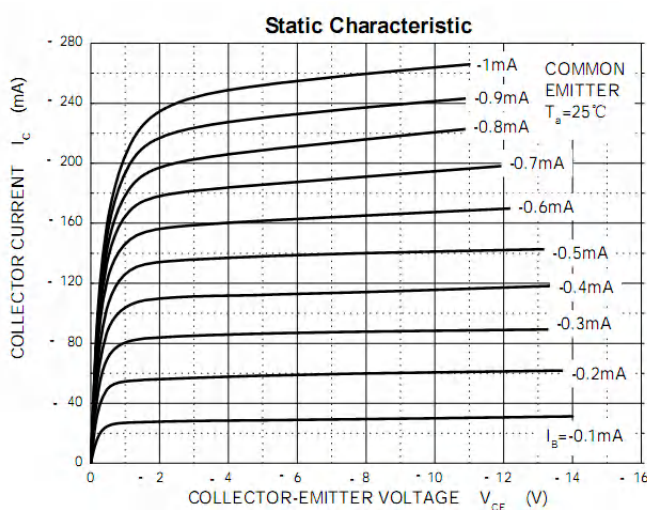
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

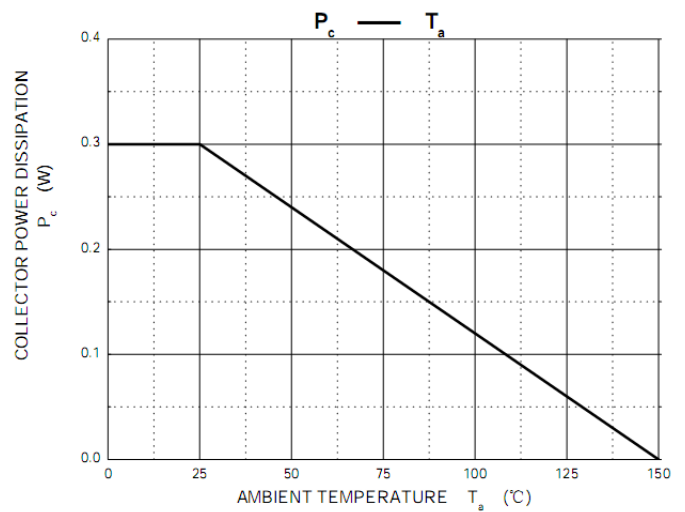
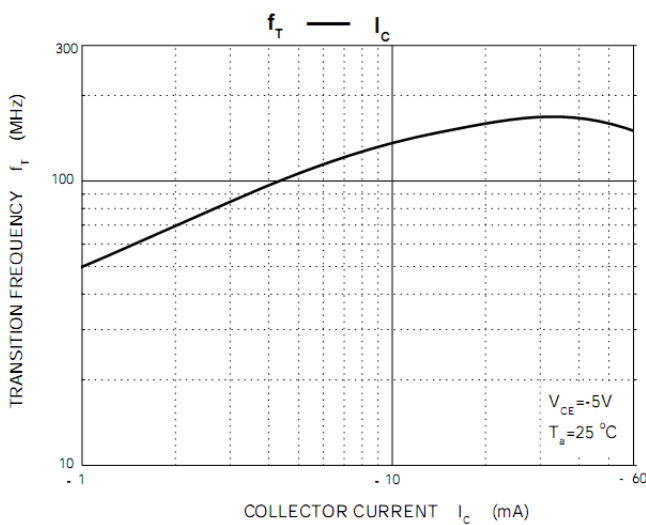
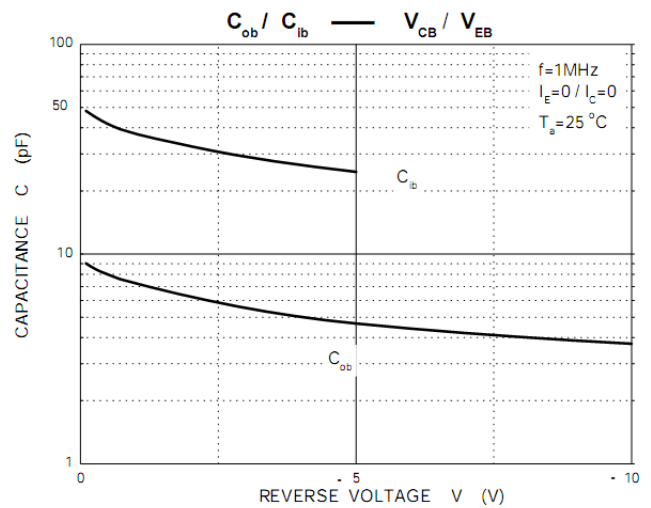
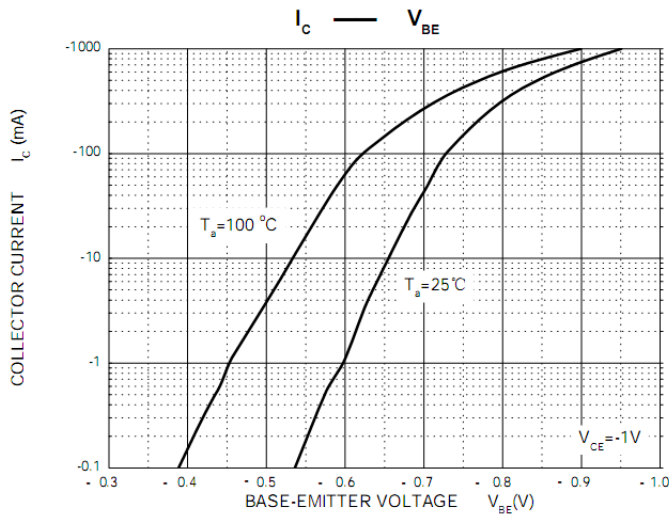
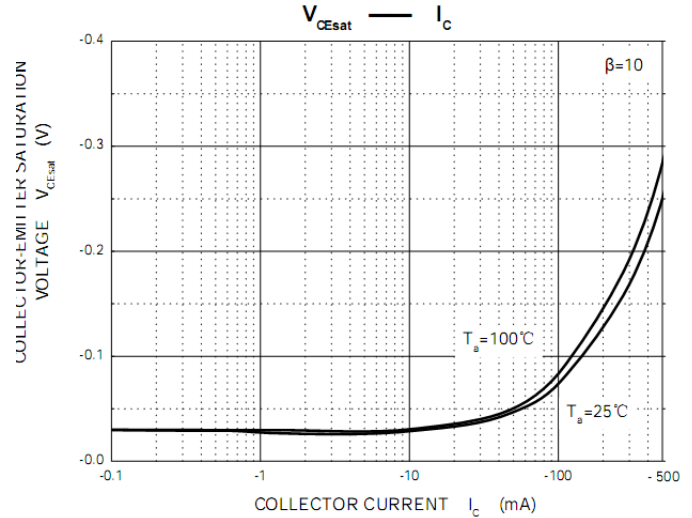
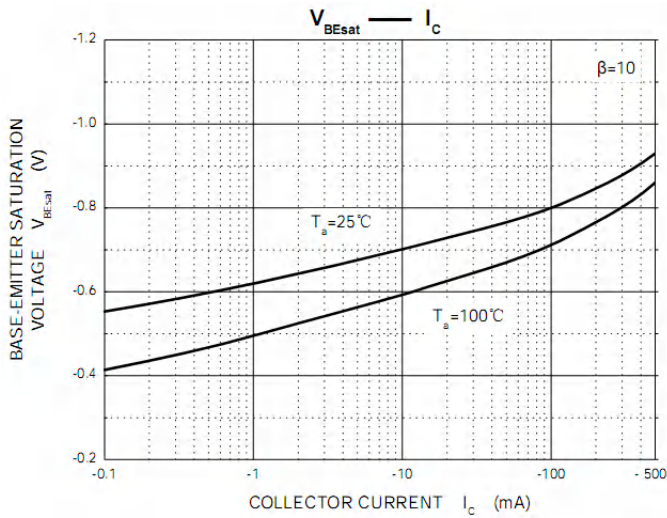


ELECTRICAL CHARACTERISTICS (T_a=25 unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _C = -10μA, I _E =0	-50		V
Collector-emitter breakdown voltage	V _{CE0}	I _C = -10mA, I _B =0	-45		V
Emitter-base breakdown voltage	V _{EB0}	I _E = -1μA, I _C =0	-5		V
Collector cut-off current	I _{CB0}	V _{CB} = -45V, I _E =0		-0.1	μA
Emitter cut-off current	I _{EB0}	V _{EB} = -4 V, I _C =0		-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} = -1V, I _C = -100mA	100	600	
	h _{FE(2)}	V _{CE} = -1V, I _C = -500mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B = -50mA		-0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -500mA, I _B = -50mA		-1.2	V
Transition frequency	f _T	V _{CE} = -5V, I _C = -10mA f=100MHz	100		MHz

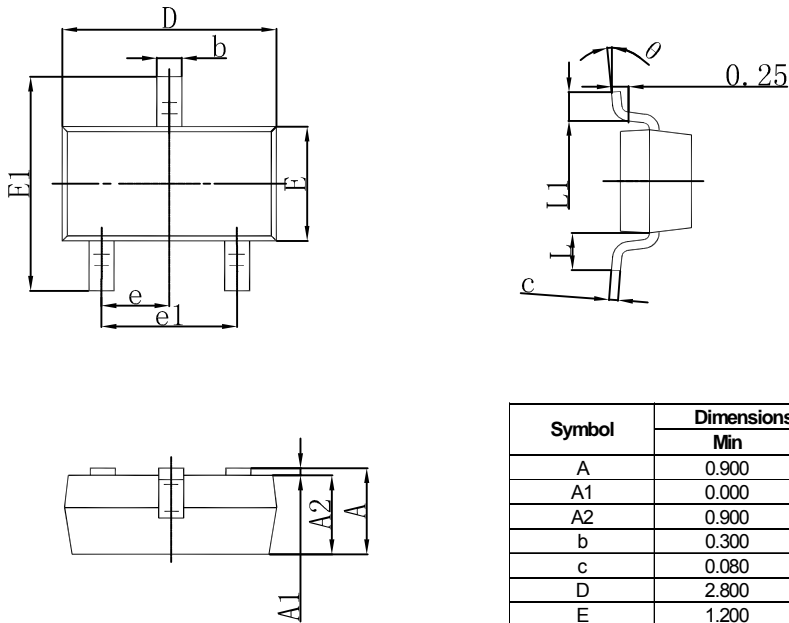
Typical Characteristics





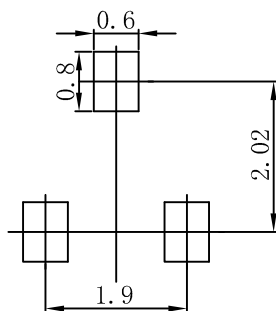


SOT-23 Package Outline Dimensions



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: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.



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