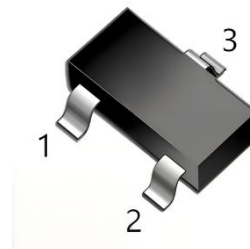


TRANSISTOR (PNP)

Parameter	Value	Unit
V_{CEO}	-45	V
I_C	-0.5	A

1. BASE
2. EMITTER
3. COLLECTOR



SOT-23

Features

- Complementary NPN Transistor(BC817).
- Ideally suited for automatic insertion.
- Epitaxial planar die construction.

Absolute maximum ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-base voltage	-50	V
V_{CEO}	Collector-emitter voltage	-45	V
V_{EBO}	Emitter-base voltage	-5	V
I_C	Collector current	-0.5	A
P_C	Collector Power Dissipation	300	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55~150	°C
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W

Note:

- 1.Absolute maximum ratings are those values beyond which the device could be permanently damaged.
- 2.Absolute maximum ratings are stress ratings only and functional device operation is not implied.

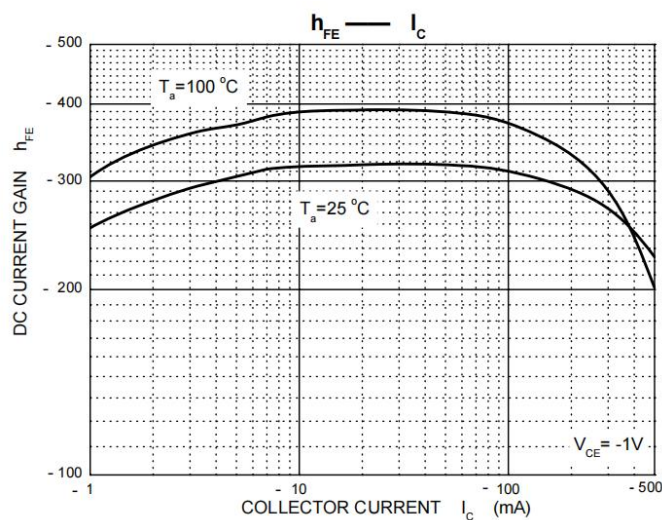
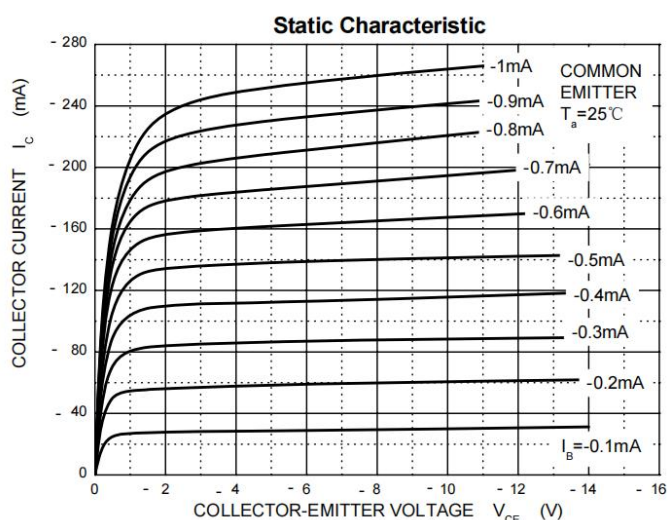
Electrical characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

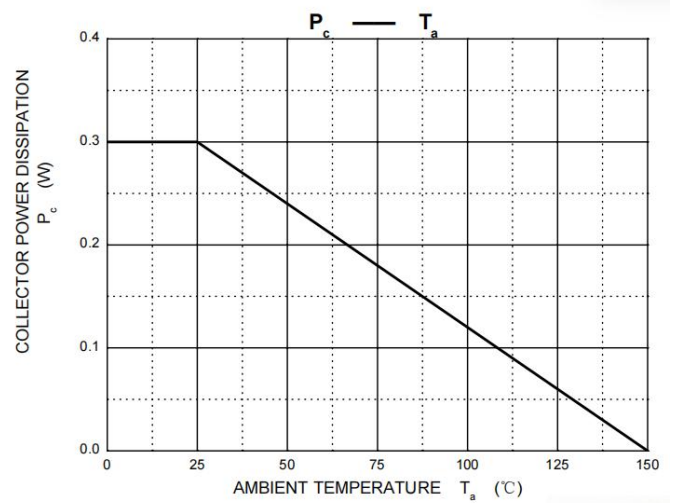
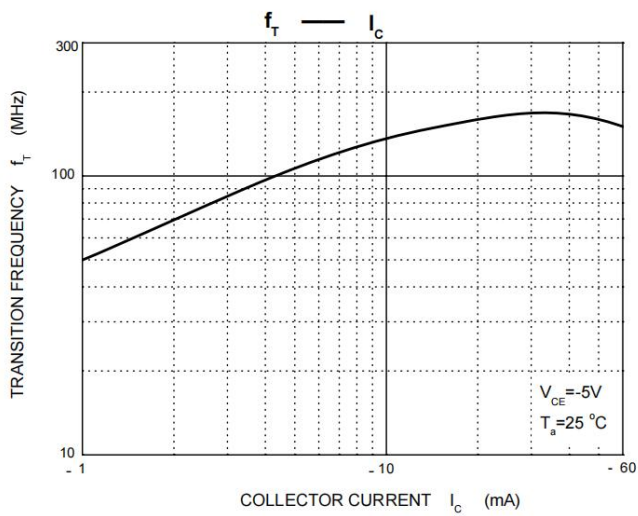
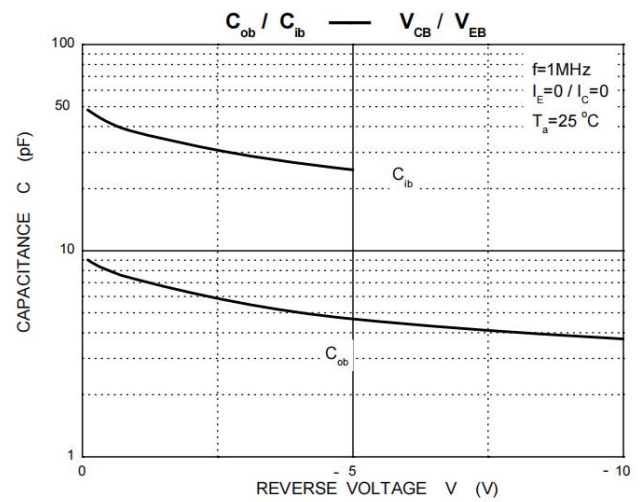
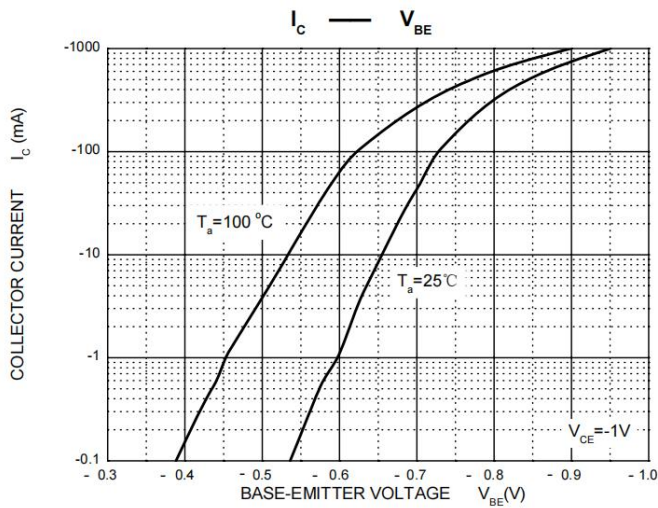
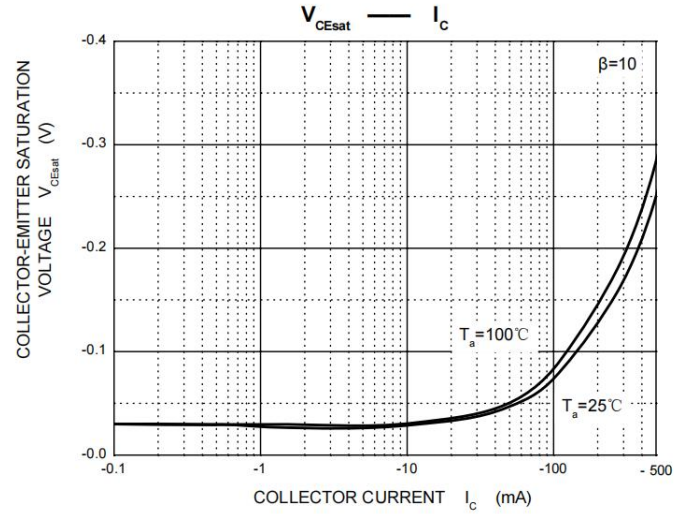
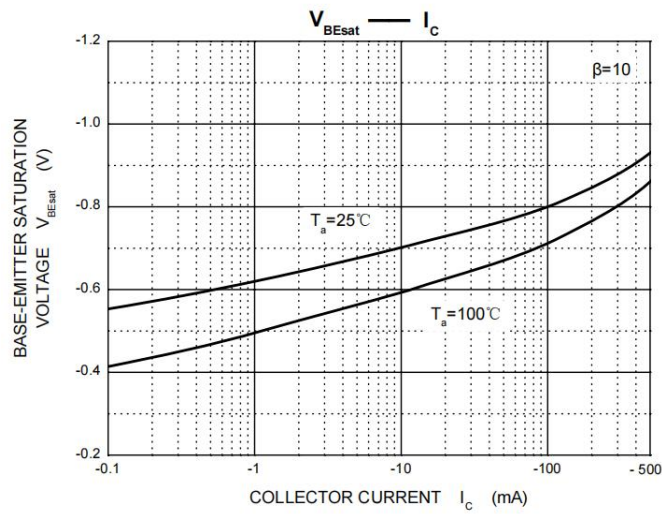
Parameter	Symbol	Test Conditions	Min	Max	Units
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-5		V
Collector cutoff current	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$		-0.1	μA
DC Current Gain (CLASSIFICATION OF h_{FE1})	h_{FE1}	5A	100	250	
		5B	160	400	
		5C	250	600	
	h_{FE2}	$V_{CE} = -1\text{V}, I_C = -500\text{mA}$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-1.2	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$	100		MHz

CLASSIFICATION OF h_{FE} (1)

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

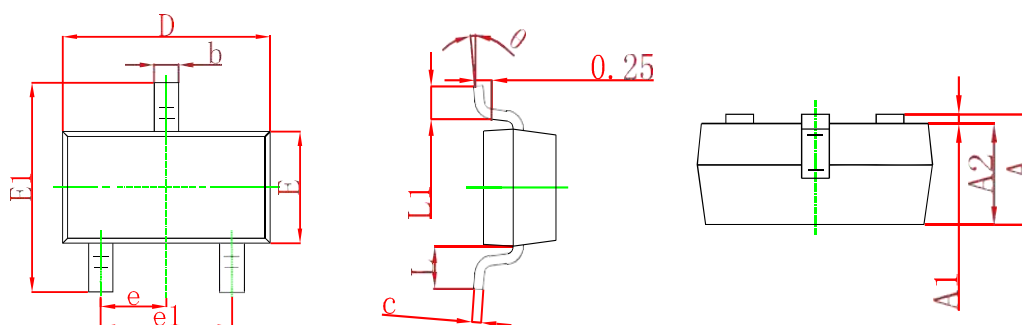
Typical characteristics





Package Outline Dimensions

SOT-23



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°

*Important Usage Information and Disclaimer

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