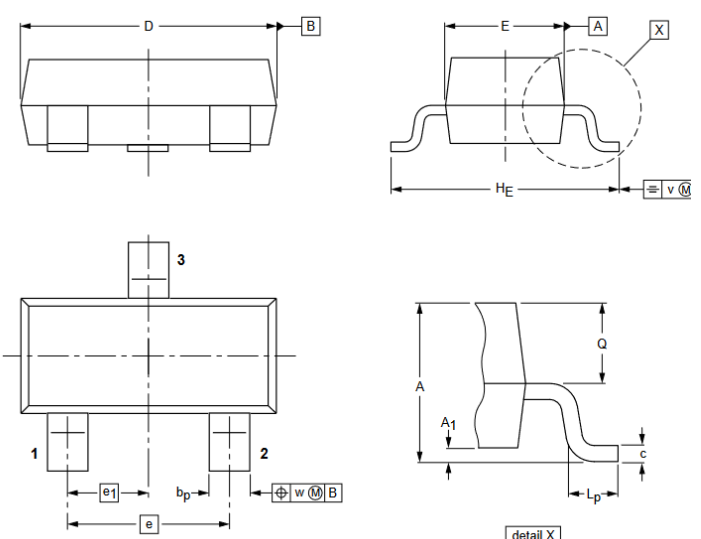


Silicon SMD PNP Epitaxial Transistors

Primary characteristics			
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
P_C	Collector power dissipation	300	mW

Features

- **SOT-23** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Epitaxial planar die construction
- Complementary **NPN** type available (**BC817**)

Case dimensions													
 1 – Base; 2 – Emitter; 3 – Collector													
SOT-23 (TO-236AB)													
Unit	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.0 ±0.1	0.1	0.43 ±0.05	0.12 ±0.03	2.9 ±0.1	1.3 ±0.1	1.9	0.95	2.3 ±0.2	0.3 ±0.15	0.5 ±0.05	0.2	0.1

Part numbering system

BC807-	25
↓	↓
Series code	H _{FE} classification (see: Classification of h_{FE(1)})

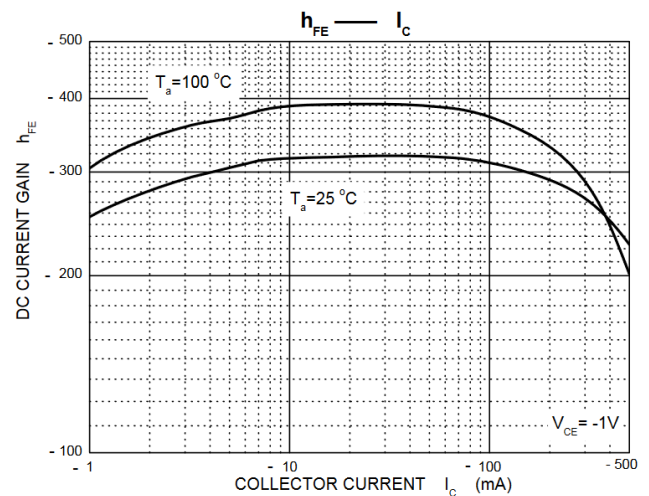
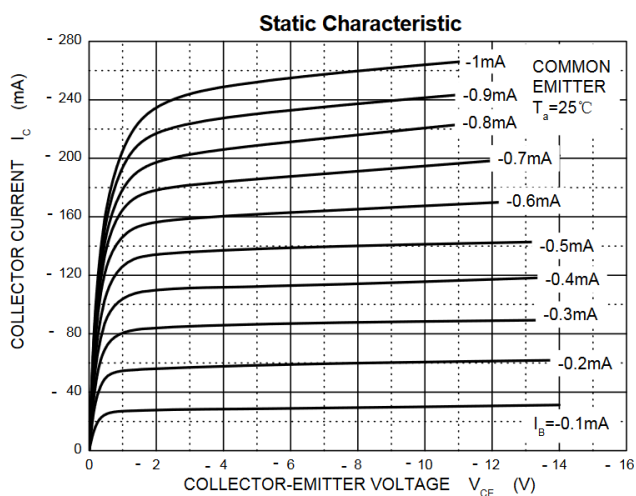
Classification of h_{FE(1)}

Part number	Range	
	Min	Max
BC807-16	100	250
BC807-25	160	400
BC807-40	250	600

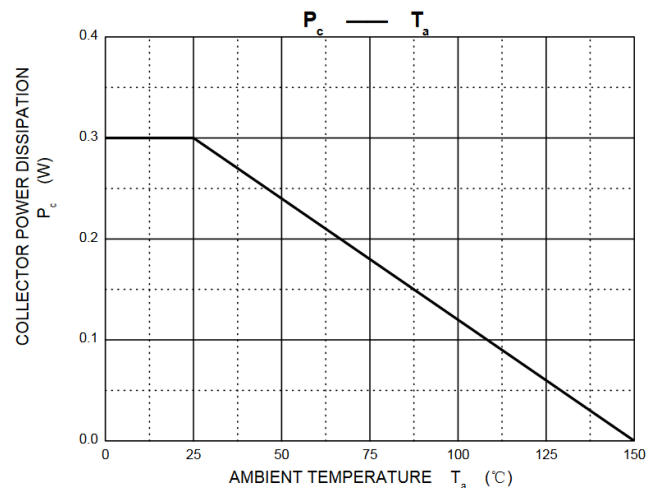
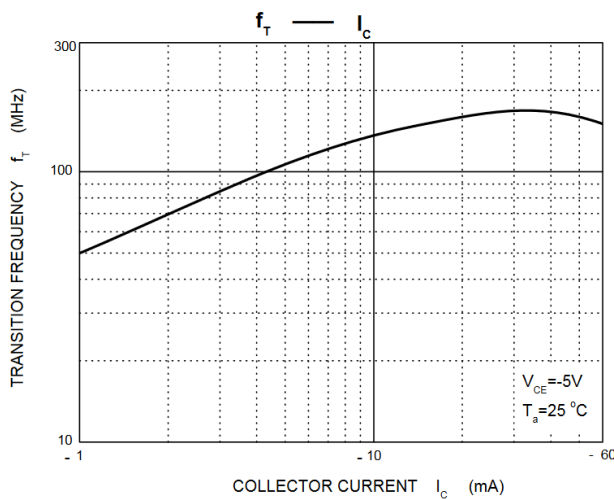
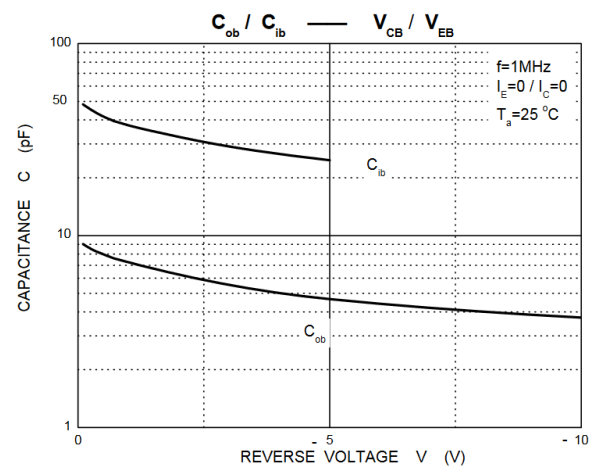
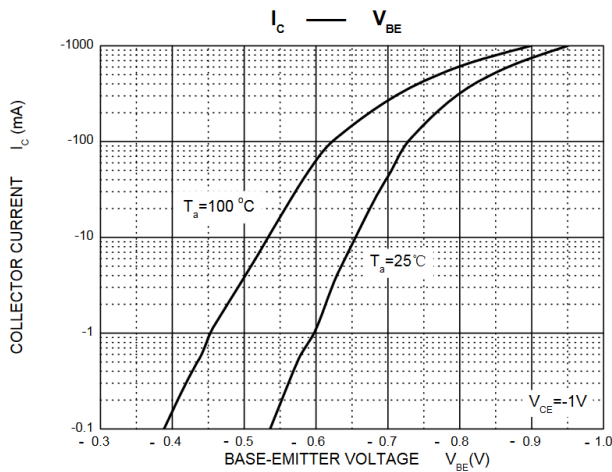
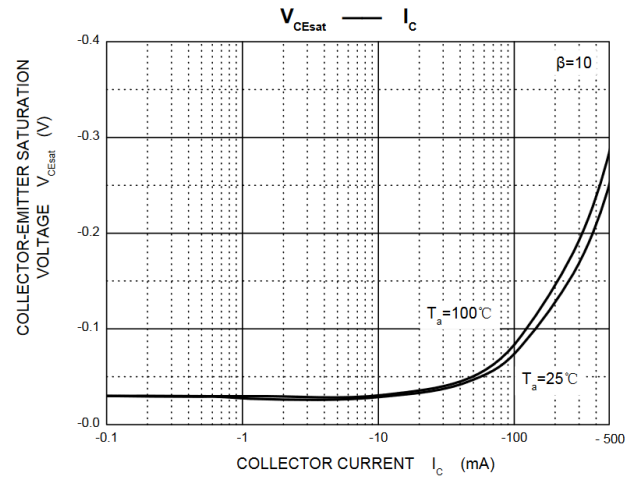
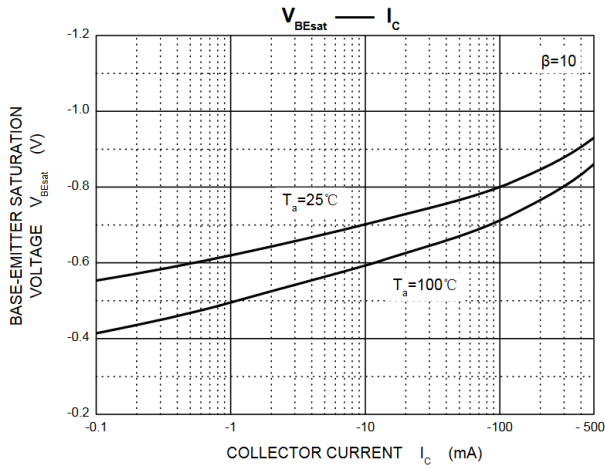
Electrical characteristics and maximum ratings ($T_a = 25^\circ\text{C}$)

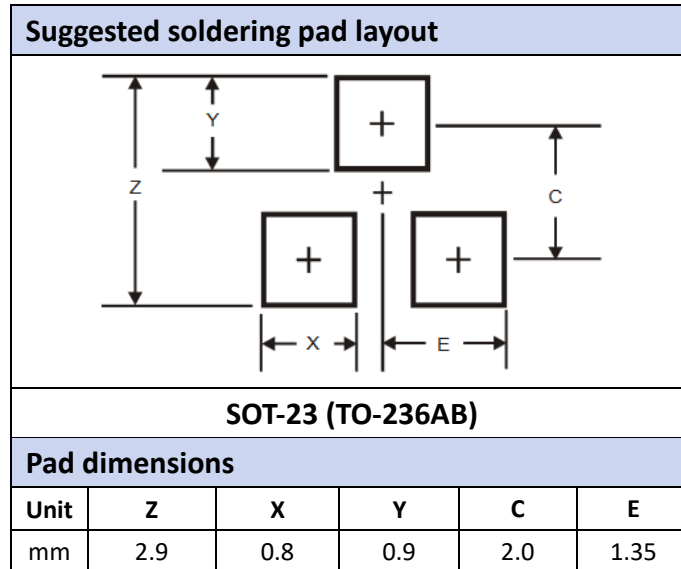
Parameter	Symbol	Test conditions	Value		Unit
			Min	Max	
Collector-base voltage	V_{CBO}	$I_C = -10\mu\text{A}, I_E = 0$	-50		V
Collector-emitter voltage	V_{CEO}	$I_C = -10\mu\text{A}, I_B = 0$	-45		V
Emitter-base voltage	V_{EBO}	$I_E = -1\mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$		-0.1	μA
Collector current	I_C		-500		mA
Collector power dissipation	P_C			300	mW
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100	600	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -500\text{mA}$	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
Junction temperature	T_j			150	$^\circ\text{C}$
Storage temperature range	T_s		-55	150	$^\circ\text{C}$
Thermal resistance junction to ambient air ¹⁾	R_{thA}			417	$^\circ\text{C/W}$

Typical characteristics



Typical characteristics





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
BC807-16 ~ BC807-40	SOT-23 (TO-236AB)	3 000 pcs / reel 144 000 pcs / box	--- 400 x 370 x 270 mm

Disclaimer

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