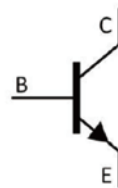


Features

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



SOT23



Equivalent Circuit

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	50	V
V_{CE0}	Collector-Emitter Voltage	45	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current	0.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction And Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V_{CB0}	Collector-base breakdown voltage	$I_C=10\mu\text{A}, I_E=0$	50			V
V_{CE0}	Collector-emitter breakdown voltage	$I_C=10\text{mA}, I_B=0$	45			V
V_{EB0}	Emitter-base breakdown voltage	$I_E=1\mu\text{A}, I_C=0$	5			V
I_{CBO}	Collector cut-off current	$V_{CB}=45\text{V}, I_E=0$			0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4\text{V}, I_C=0$			0.1	μA
$h_{FE(1)}$	DC current gain	$V_{CE}=1\text{V}, I_C=100\text{mA}$	100		600	
$h_{FE(2)}$		$V_{CE}=1\text{V}, I_C=500\text{mA}$	40			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500\text{mA}, I_B=50\text{mA}$			0.7	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=500\text{mA}, I_B=50\text{mA}$			1.2	V
V_{BE}	Base-emitter voltage	$V_{CE}=1\text{V}, I_C=500\text{mA}$			1.2	V
C_{ob}	Collector capacitance	$V_{CB}=10\text{V}, f=1\text{MHz}$		10		pF
f_T	Transition frequency	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100			MHz

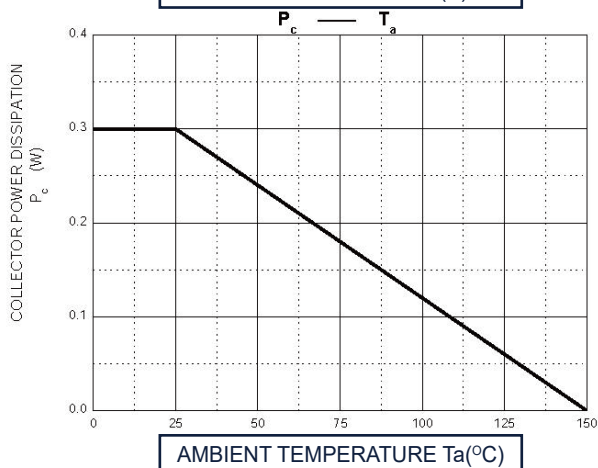
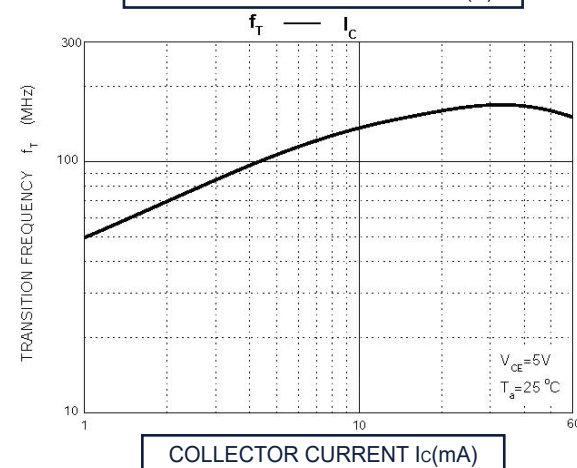
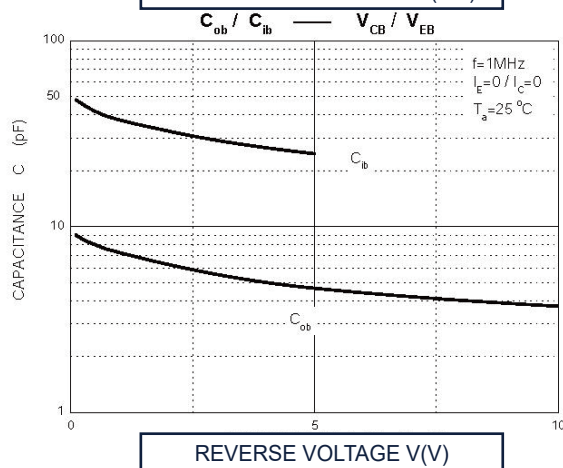
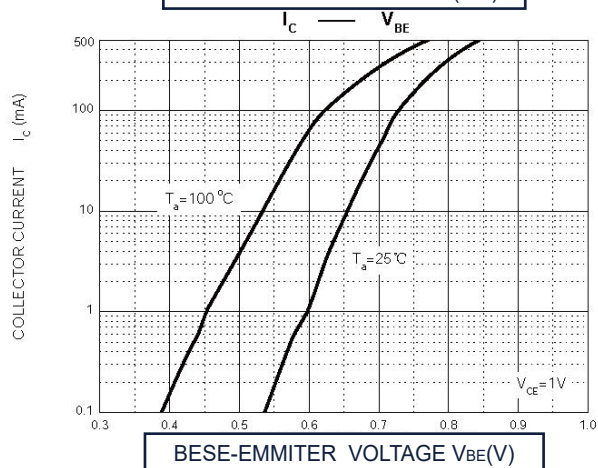
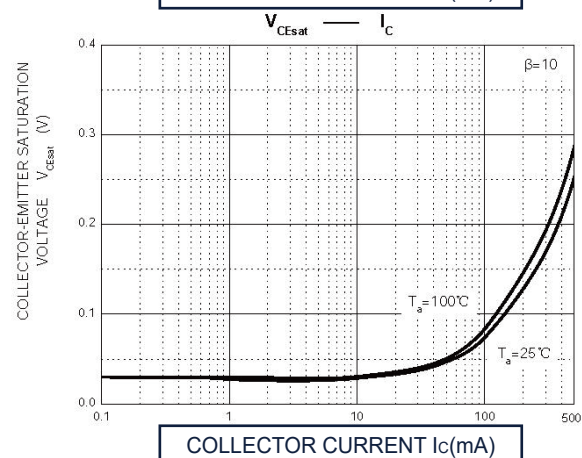
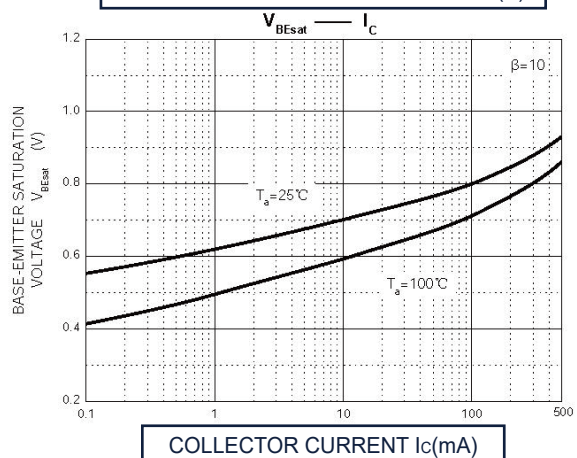
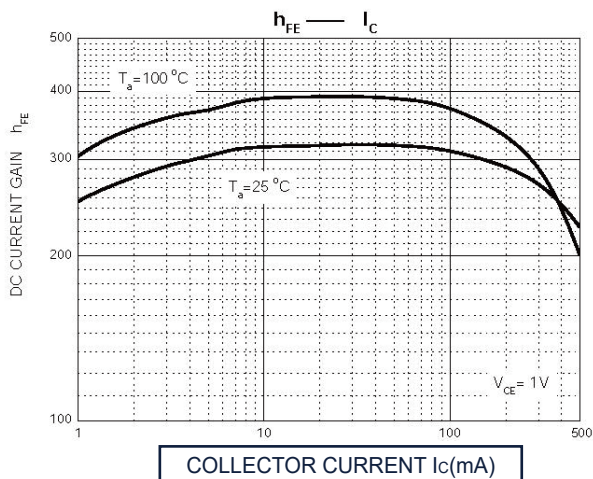
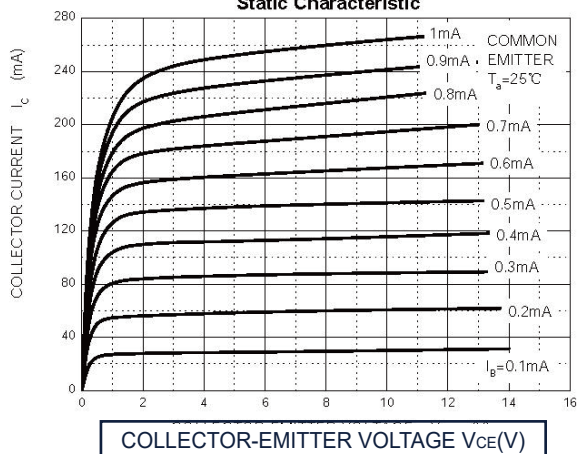
Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE(1)}$	Qty(PCS)
BC817-16	SOT-23	BC817-16 产品名称 product name	6A	100 ~ 250	3000
BC817-25			6B	160 ~ 400	
BC817-40			6C	250 ~ 600	



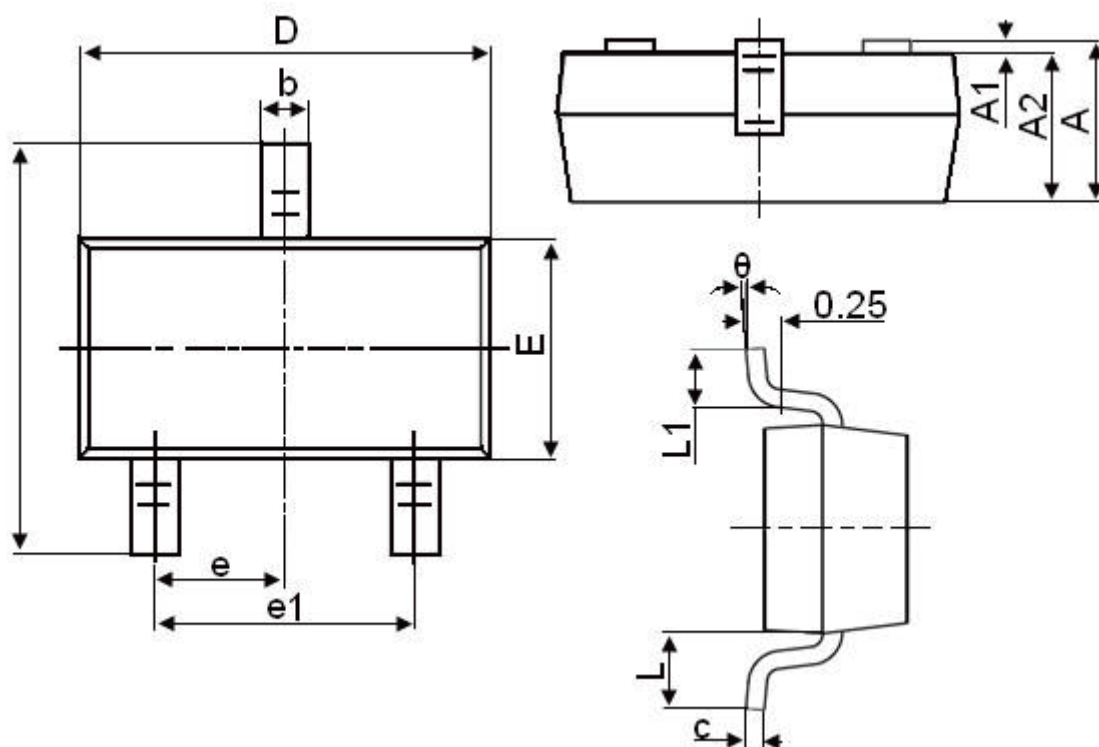
Typical Characteristics

Static Characteristic





SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°