

SOT-23 Plastic-Encapsulate Transistors

Features

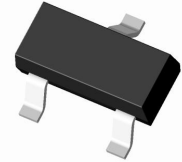
- Complementary to BC807.
- 300mW; Power Dissipation of 300mW
- High Stability and High Reliability

Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

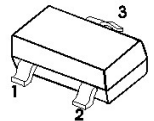


RoHS
COMPLIANT



Marking: SOT-23

Pin definition



1. BASE
2. EMITTER
3. COLLECTOR

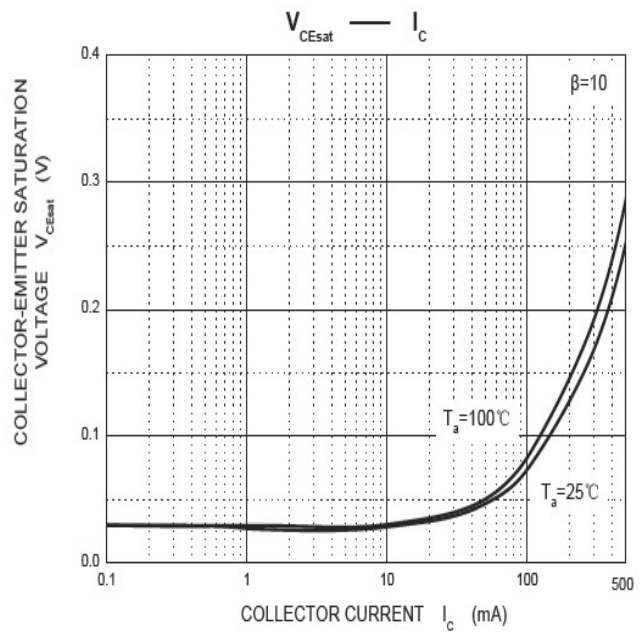
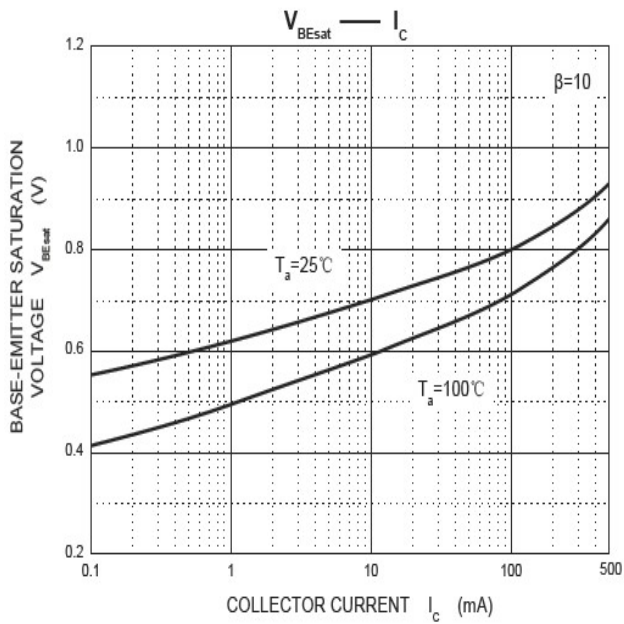
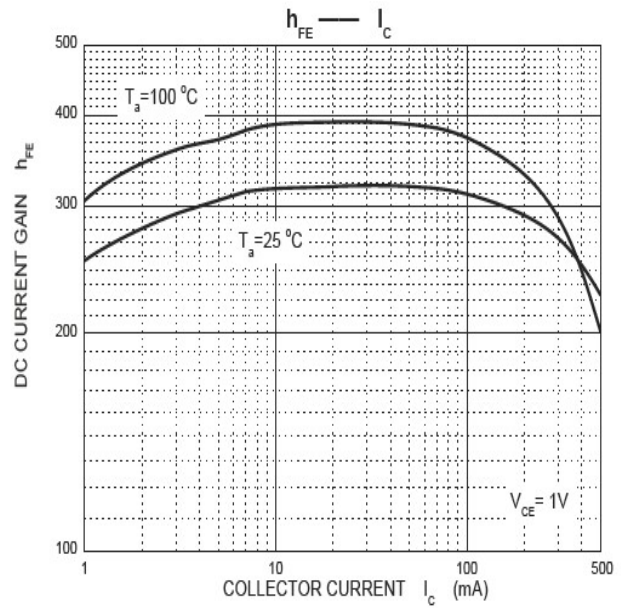
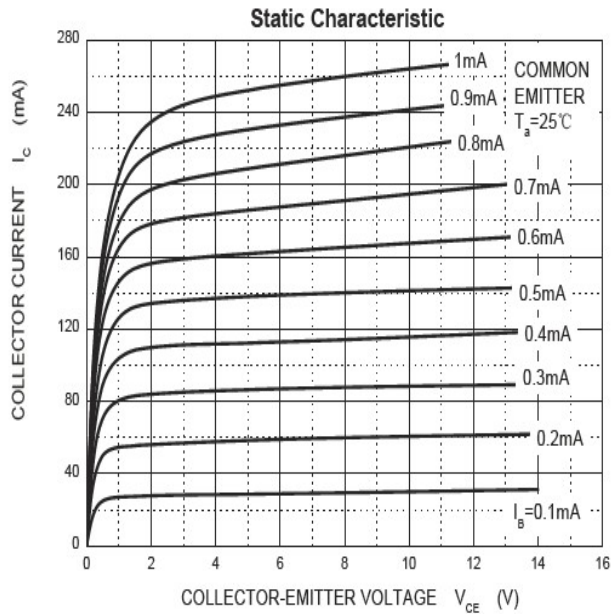
Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	50	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter -Base Voltage	V _{EBO}	5	V
Collector Current-Continuous	I _C	500	mA
Collector Power Dissipation	P _C	300	mW
Operating junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55-+150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	417	°C/W

Electrical Specifications (T _A =25°C unless otherwise noted)					
Parameter	Symbol	Test Conditions	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =10uA, I _E =0	50		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =10mA, I _B =0	45		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =1uA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =45V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		100	
DC current gain	hFE(1)	V _{CE} =1V, I _C =100mA	100	600	
	hFE(2)	V _{CE} =1V, I _C =500mA	40		
Collector-emittersaturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA		0.70	V
Collector-emitter saturation voltage	V _{BE(sat)}	I _C =500mA, I _B =50mA		1.20	V
Base -emitter saturation voltage	V _{BE}	V _{CE} =1V, I _C =500mA		1.20	V
Transition frequency	Cob	V _{CB} =10V, f=1MHz	10(Typ)		
Delay time	t _T	V _{CE} =5V, I _C =10mA, f=100MHz	100		MHz

Classification OF _{hFE(2)}			
RANK	BC817 -16	BC817 -25	BC817 -40
RANGE	100-250	160-400	250-600
Marking	6A	6B	6C

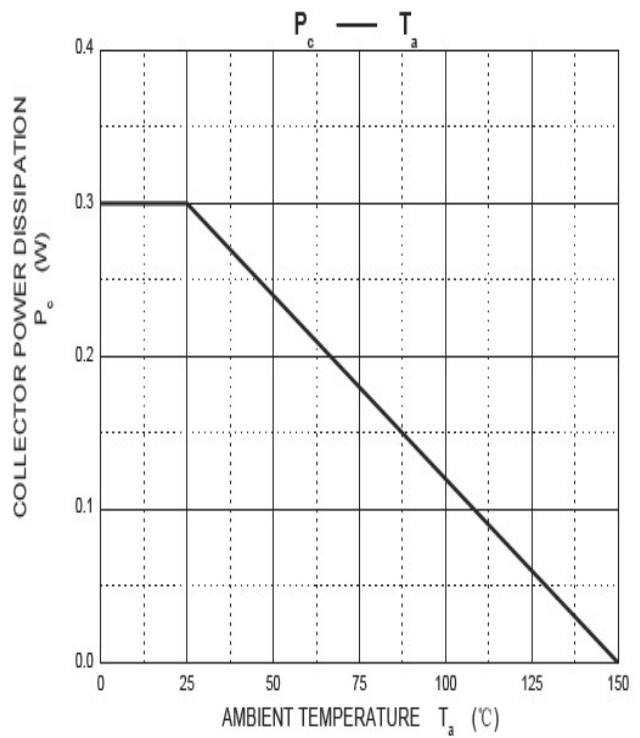
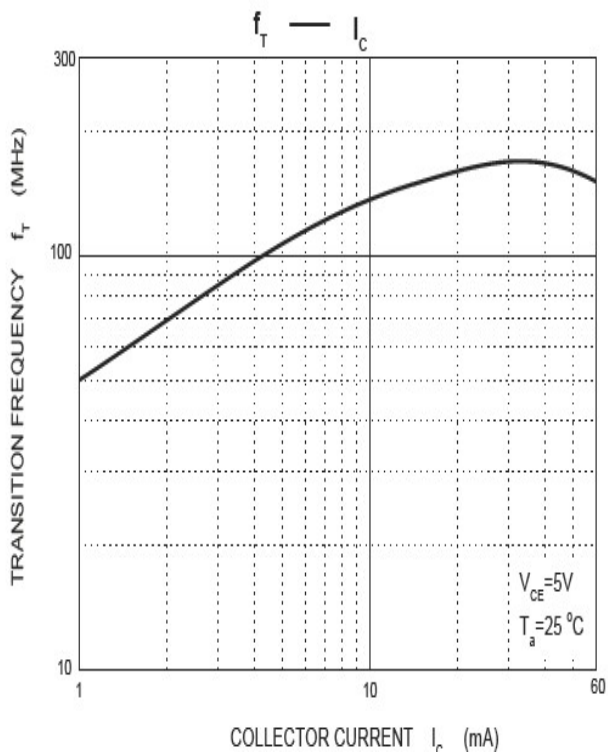
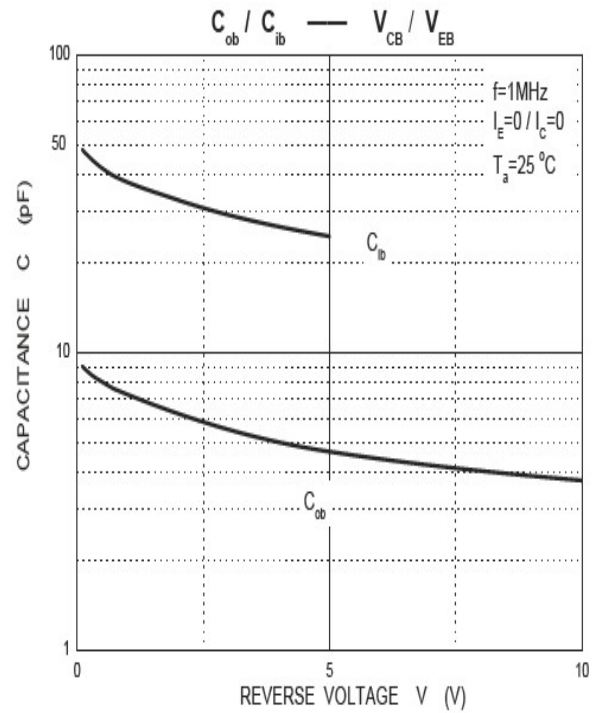
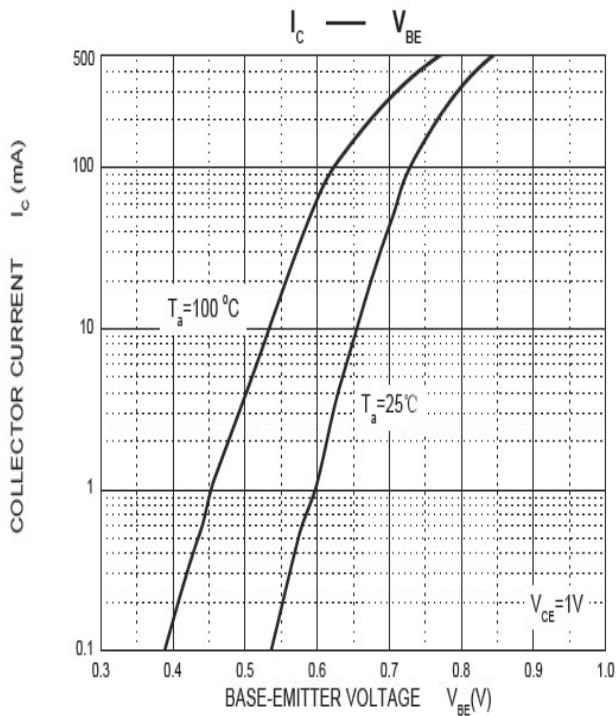
Ratings and Characteristics Curves

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



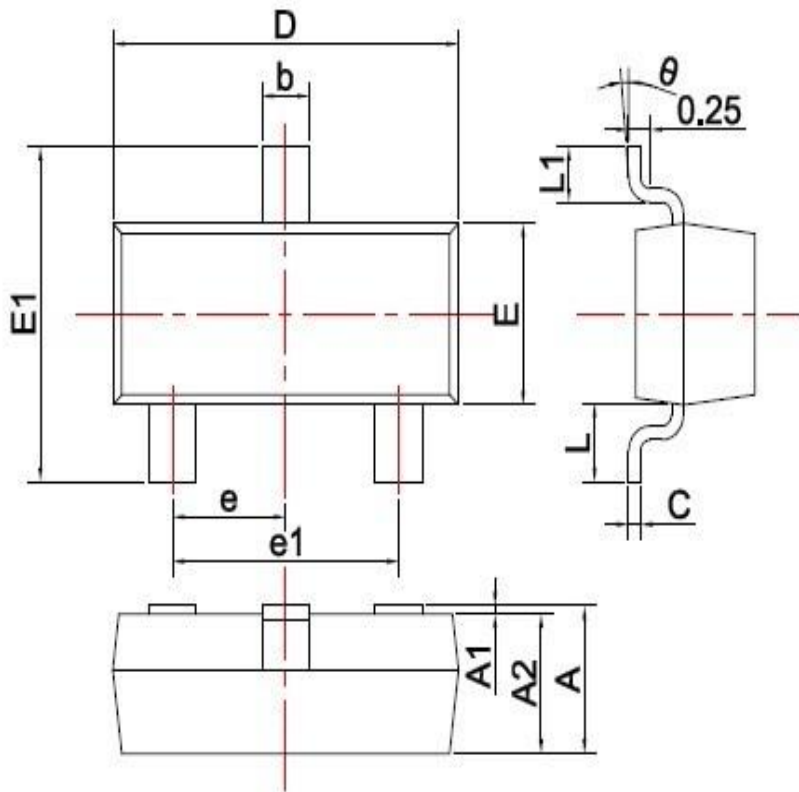
Ratings and Characteristics Curves

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



Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	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°

Unit: mm

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.11.13	First issue

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.

(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.