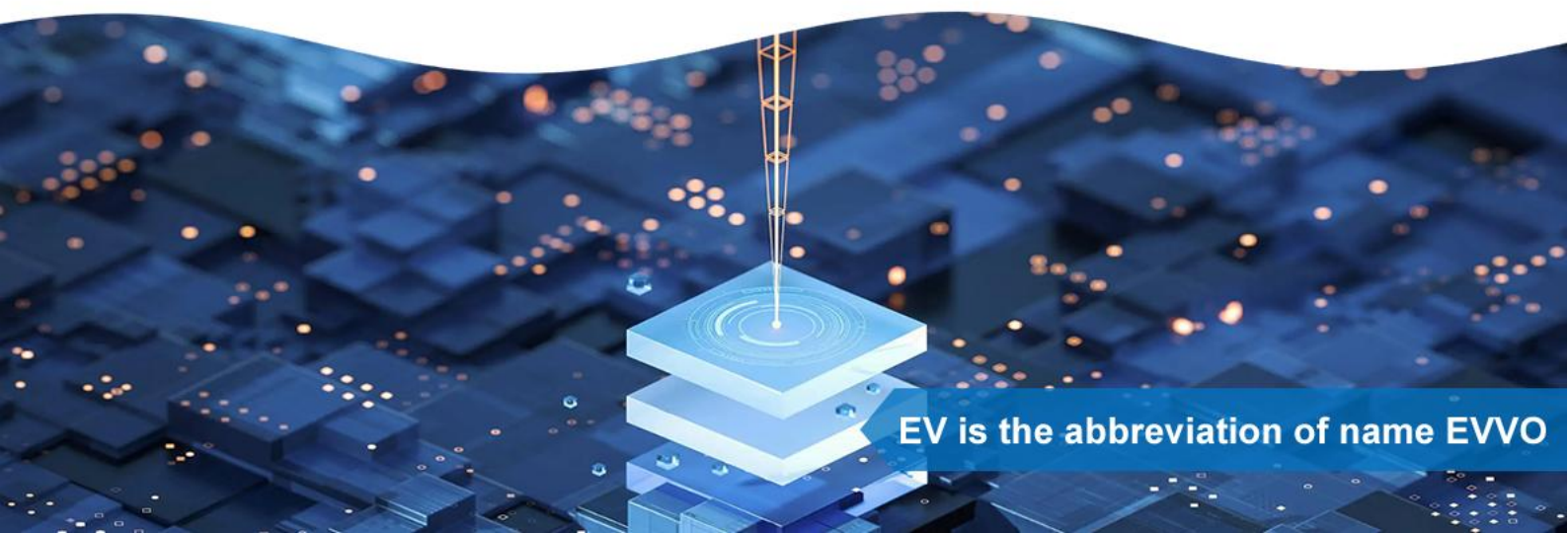
EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	EVBC807-XX-S1
Overseas Part Number	BC807-XX
Equivalent Part Number	BC807-XX

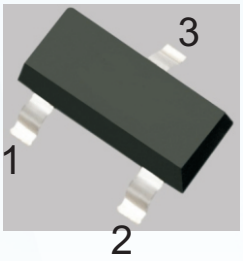
"S1" means SOT-23



BC807

PNP TRANSISTOR

SOT-23



1.BASE
2.EMITTER
3.COLLECTOR

FEATURES

- Ldeally suited for automatic insertion
- Epitaxial planar die construction
- Complementary NPN type available(BC817)

MAXIMUM RATINGS (Ta=25℃ 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	-0.5	A
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C =-10uA, I_E = 0	-50		V
Collector-emitter breakdown voltage	V_{CEO}	I_C =-10mA, I_B = 0	-45		V
Emitter-base breakdown voltage	V_{EBO}	I_E =-1uA, I_C = 0	-5		V
Collector cut-off current	I_{CBO}	V_{CB} =-45V, I_E = 0		-0.1	uA
Collector cut-off current	I_{CEO}	V_{CE} =-40V, I_B = 0		-0.2	uA
Emitter cut-off current	I_{EBO}	V_{EB} =-4V, I_C =0		-0.1	uA
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

CLASSIFICATION OF h_{FE}

RANK	BC807-16	BC807-25	BC807-40
RANGE	100-250	160-400	250-600

TYPICAL CHARACTERICS

Fig.1 Static characteristics

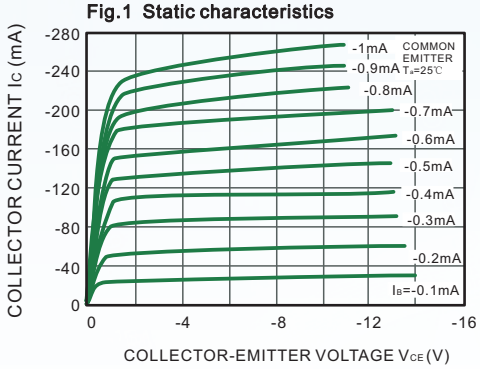


Fig.2 Pc —— Ta

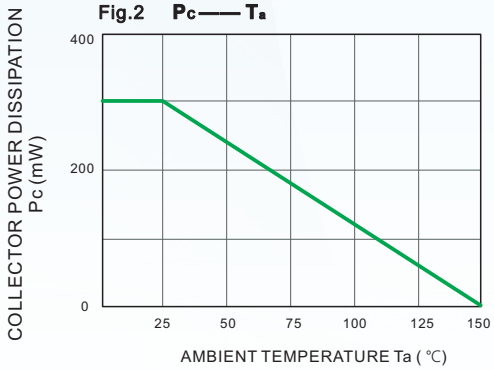


Fig.3 Cob / Cib —— VCB / VEB

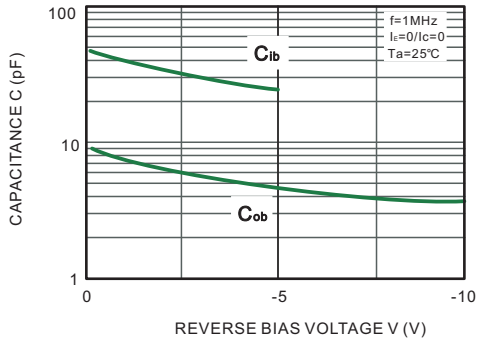


Fig.4 VCEsat —— Ic

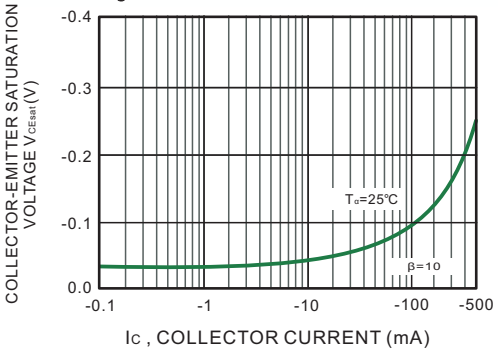


Fig.5 hFE--Ic

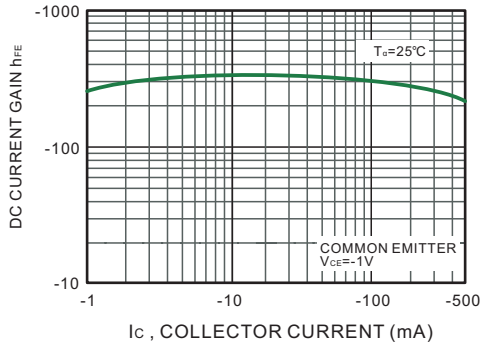


Fig.6 VBEsat —— Ic

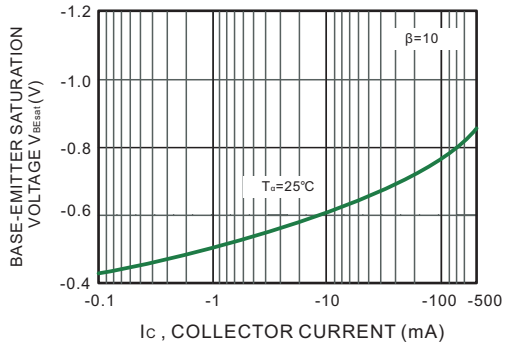


Fig.7 Ic —— VBE

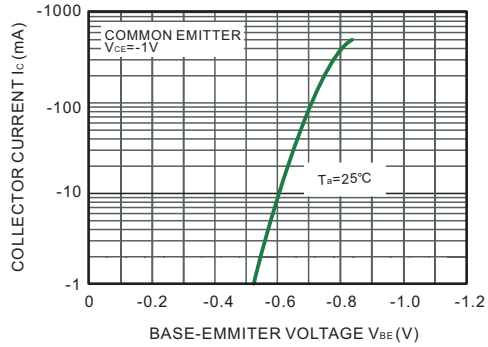
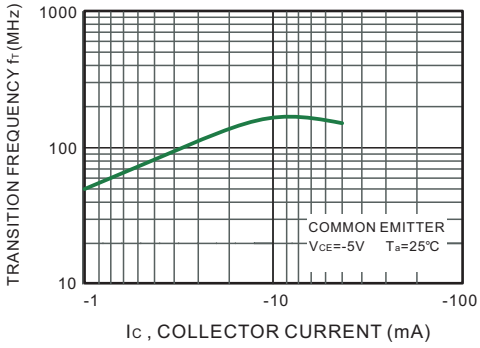
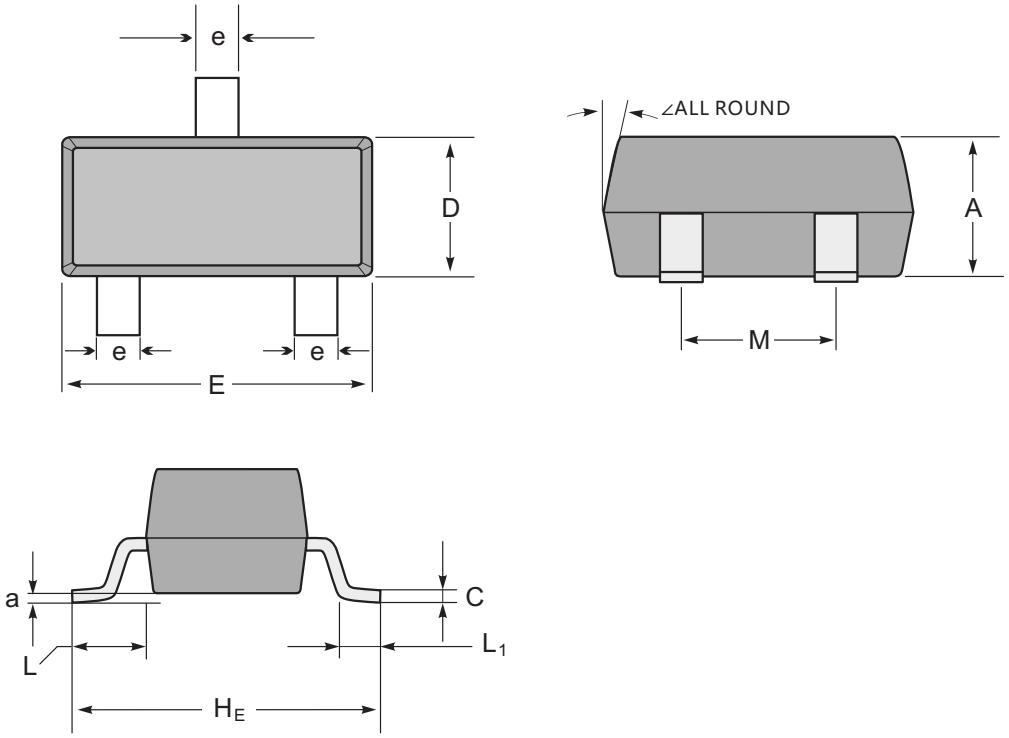


Fig.8 fT ——Ic



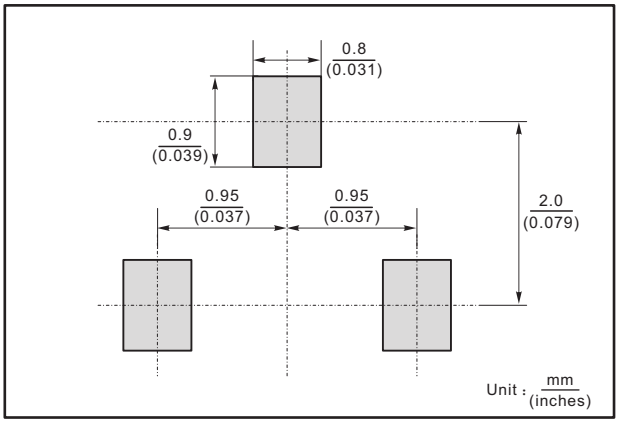
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L1	a	∠
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0	12°
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0	
	min	35	3	47	110	87	12	67			6	

The recommended mounting pad size

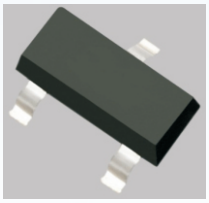


Marking

Type number	Marking code
BC807-16	5A
BC807-25	5B
BC807-40	5C

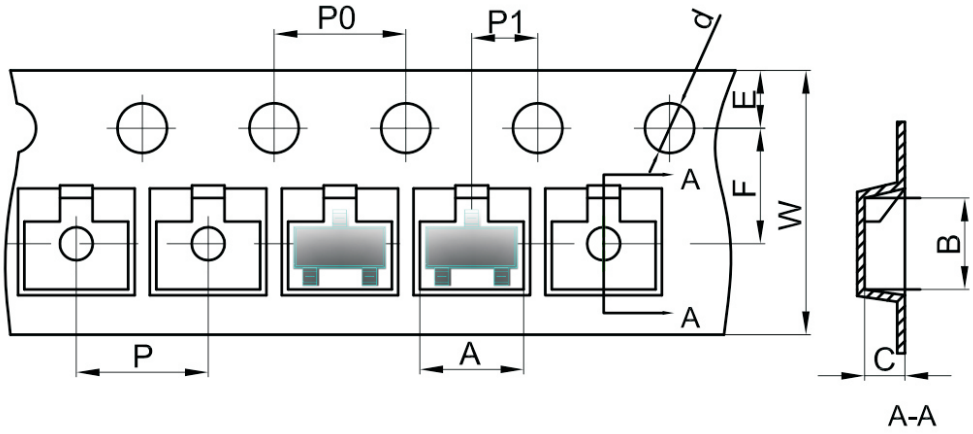
SOT-23 Packing

1.The method of packaging and dimension are shown as below figure. (Dimension in mm)



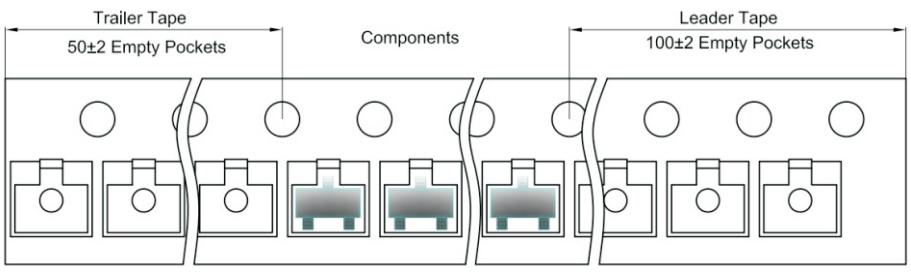
SOT-23

SOT-23 Embossed Carrier Tape



Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



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