EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	EVBC856-EVBC858
Overseas Part Number	BC856-BC858
Equivalent Part Number	BC856-BC858

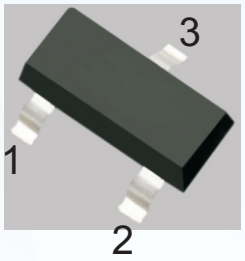
BC856 BC857 BC858

PNP TRANSISTOR

FEATURES

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

SOT-23



1.BASE
2.EMITTER
3.COLLECTOR

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Parameter		Symbol	Value	Unit
Collector–Base Voltage	BC856 BC857 BC858	V_{CBO}	-80 -50 -30	V
Collector–Emitter Voltage	BC856 BC857 BC858	V_{CEO}	-65 -45 -30	V
Emitter–Base Voltage		V_{EBO}	-5	V
Collector Current — Continuous		I_C	-0.1	A
Collector Power Dissipation		P_C	200	mW
Thermal Resistance From Junction To Ambient		R_{thJA}	625	℃/W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{stg}	-65~+150	℃

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

Parameter		Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BC856 BC857 BC858	V_{CBO}	I_C =-10uA, I_E = 0	-80 -50 -30		V
Collector-emitter breakdown voltage	BC856 BC857 BC858	V_{CEO}	I_C =-10mA, I_B = 0	-65 -45 -30		V
Emitter-base breakdown voltage		V_{EBO}	I_E =-1uA, I_C = 0	-5		V
Collector cut-off current	BC856 BC857 BC858	I_{CBO}	V_{CB} =-70V, I_E = 0 V_{CB} =-45V, I_E = 0 V_{CB} =-25V, I_E = 0		-0.1	uA
Collector cut-off current	BC856 BC857 BC858	I_{CEO}	V_{CE} =-60V, I_B =0 V_{CE} =-40V, I_B =0 V_{CE} =-25V, I_B =0		-0.1	uA
Emitter cut-off current		I_{EBO}	V_{EB} =-5V, I_C = 0		-0.1	uA
DC current gain	BC856A,857A,858A BC856B,857B,858B BC857C,BC858C	h_{FE}	V_{CE}=-5V,I_C=-2mA	125 220 420	250 475 800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C =-100mA, I_B =-5mA		-0.5	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C =-100mA, I_B =-5mA		-1.1	V
Transition frequency		f_T	V_{CE} =-5V, I_C =-10mA,f =100MHz	100		MHz
Collector capacitance		C_{ob}	V_{CB} =-10V, f =1MHz		4.5	pF

TYPICAL CHARACTERICS

Fig.1 Static characteristics

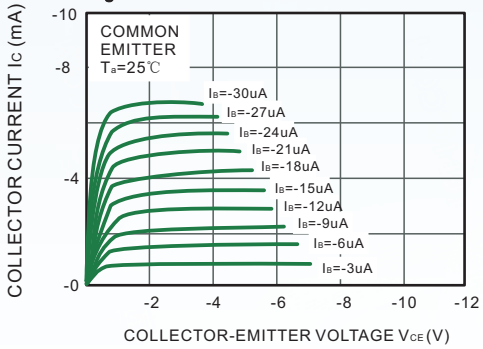


Fig.2 P_C —— T_a

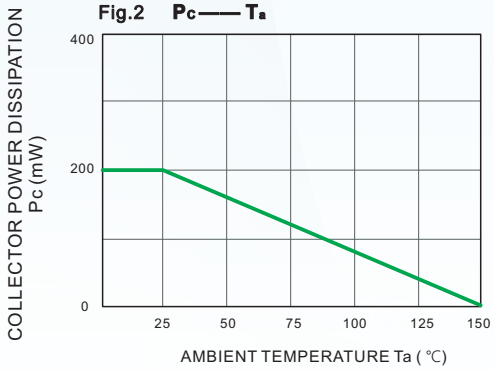


Fig.3 C_{ob} / C_{ib} —— V_{CB} / V_{EB}

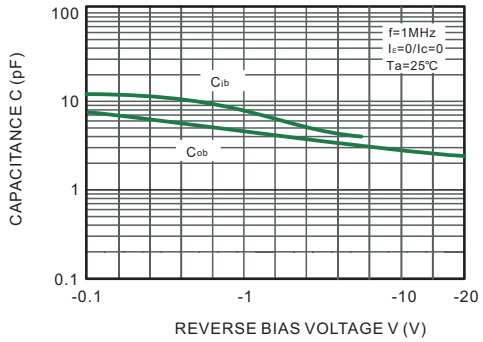


Fig.4 V_{CEsat} —— Ic

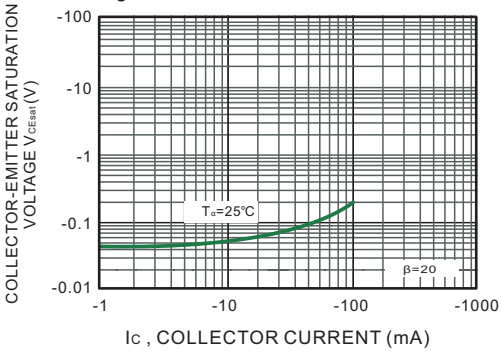


Fig.5 h_{FE}--Ic

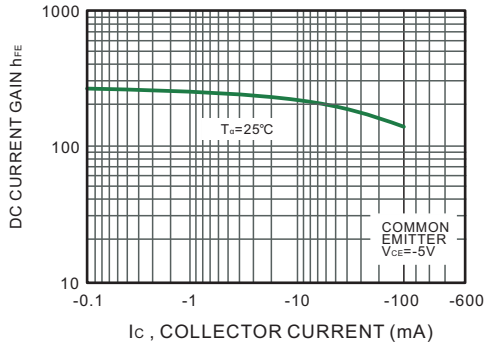


Fig.6 V_{BEsat} —— Ic

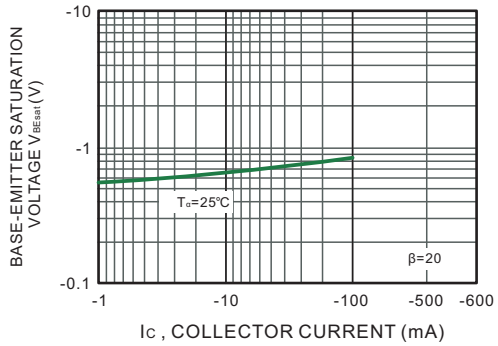


Fig.7 Ic —— V_{BE}

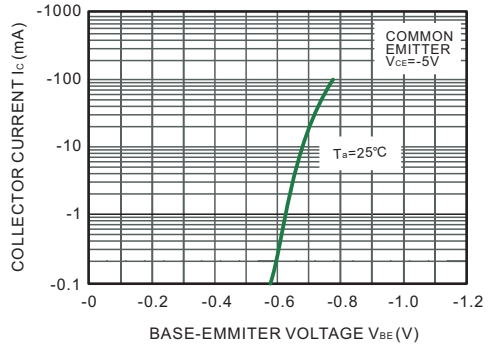
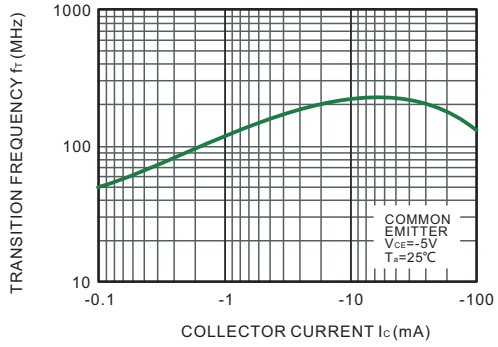
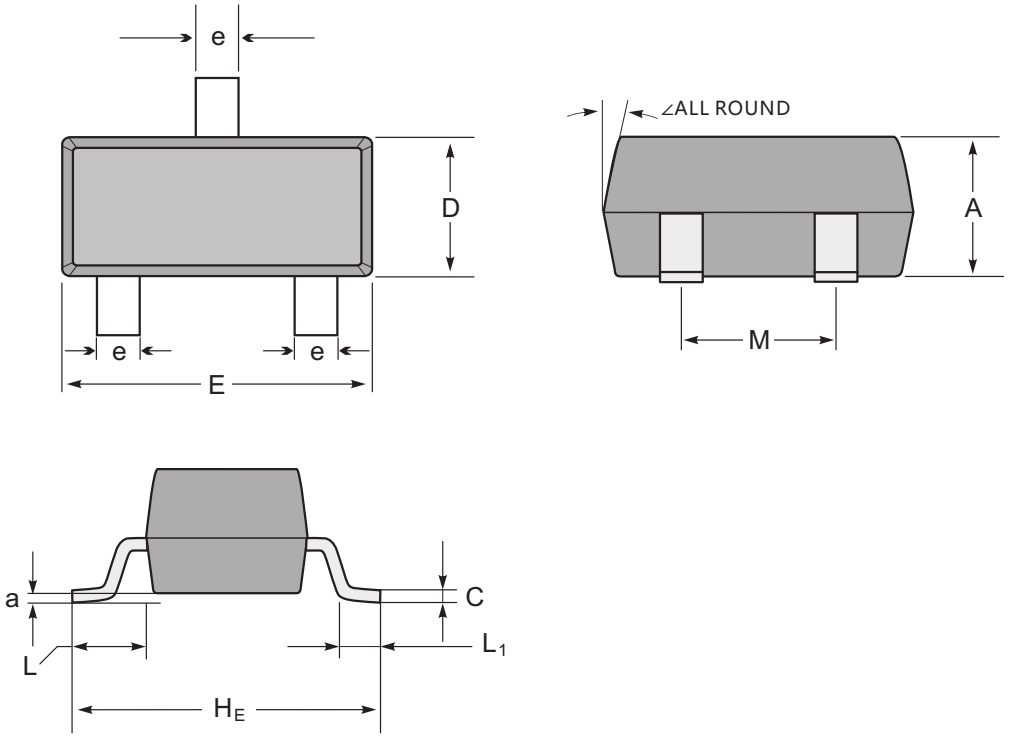


Fig.8 f_T —— Ic



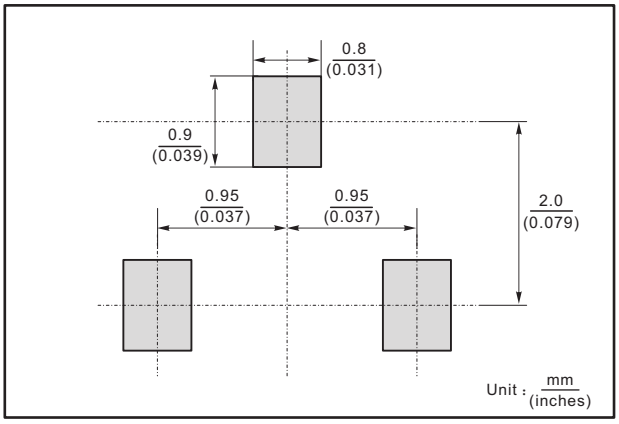
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a	∠
mm	max	1.1	0.20	1.4	3.0	2.6	0.6	1.95	0.55 (ref)	0.36 (ref)	0.15	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.7			0.0	
mil	max	43	7.9	55	118	102	24	77	22 (ref)	14 (ref)	6	
	min	35	3.1	47	110	87	13	67			0.0	

The recommended mounting pad size



Marking

Type number	Marking code
BC856A	3A
BC856B	3B
BC857A	3E
BC857B	3F
BC857C	3G
BC858A	3J
BC858B	3K
BC858C	3L

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