

EVVOSEMI[®]

THINK CHANGE DO



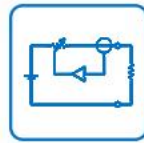
ESD



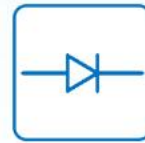
TVS



MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	EVBC846-EVBC848
▶ Overseas	Part Number	BC846-BC848
▶ Equivalent	Part Number	BC846-BC848

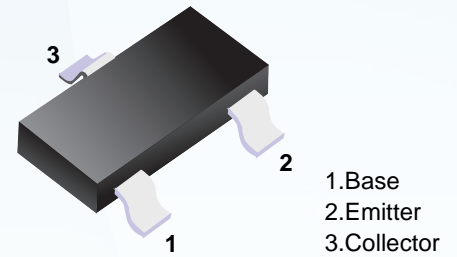
"S1" means SOT-23

EV is the abbreviation of name EVVO

■ NPN Transistors

■ Features

- Ideally suited for automatic insertion
- For switching and AF amplifier applications



■ Simplified outline(SOT-23)

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	EVBC846	EVBC847	EVBC848	Unit
Collector - Base Voltage	V _{CB0}	80	50	30	V
Collector - Emitter Voltage	V _{CEO}	65	45	30	
Emitter - Base Voltage	V _{EB0}	6	6	6	
Collector Current - Continuous	I _C	100			mA
Collector Power Dissipation	P _C	200			mW
Junction Temperature	T _J	150			°C
Storage Temperature Range	T _{stg}	-55 to 150			

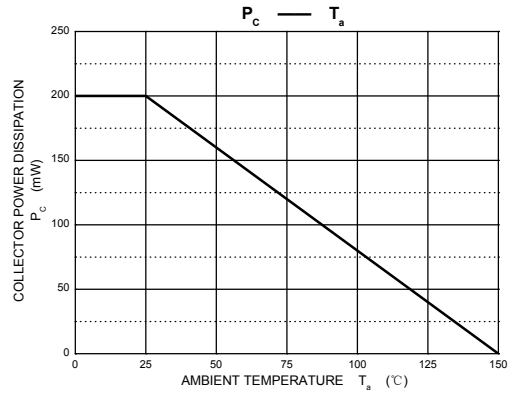
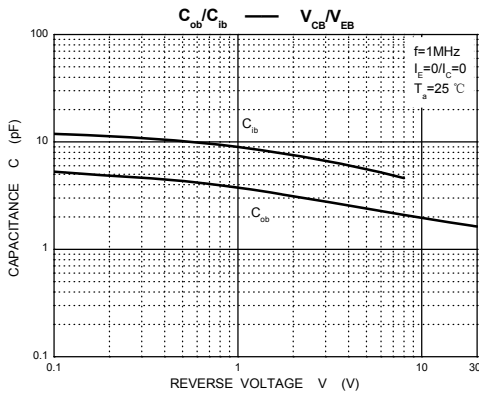
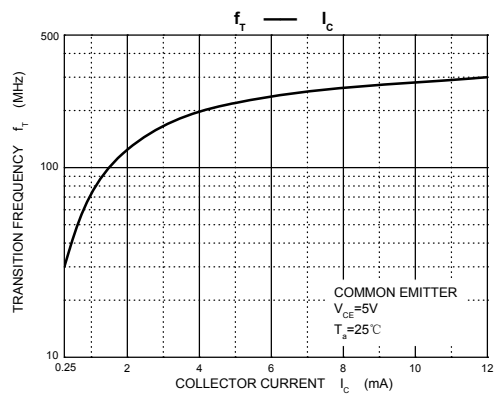
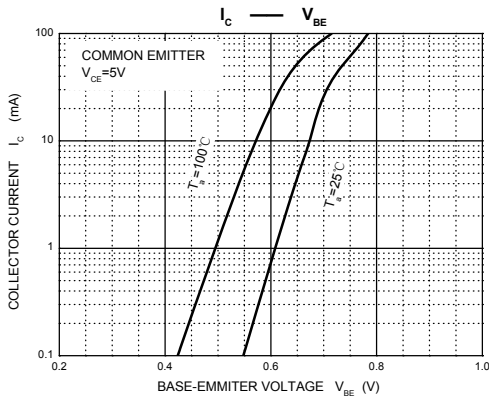
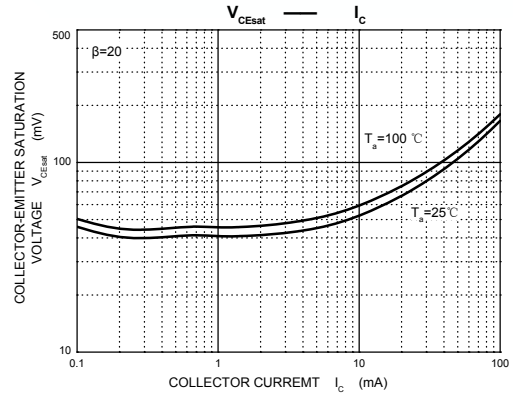
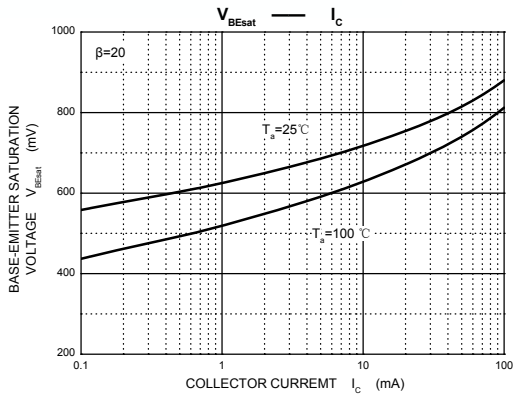
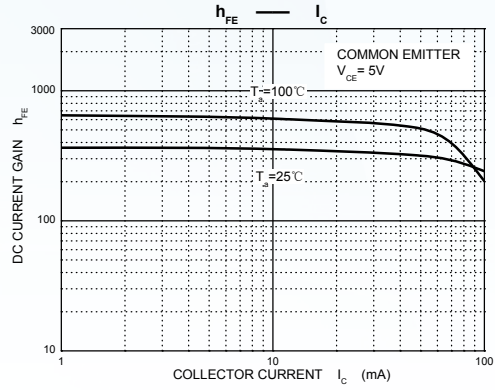
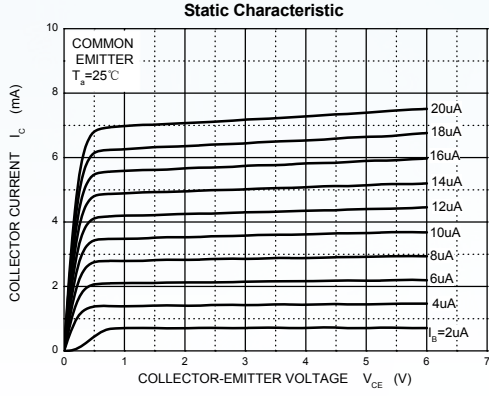
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage EVBC846 EVBC847 EVBC848	V _{CB0}	I _c = 100 μA, I _E = 0	80			V
			50			
			30			
Collector- emitter breakdown voltage EVBC846 EVBC847 EVBC848	V _{CE0}	I _c = 1 mA, I _B = 0	65			V
			45			
			30			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	6			
Collector-base cut-off current EVBC846 EVBC847 EVBC848	I _{CB0}	V _{CB} = 70 V, I _E = 0			100	nA
		V _{CB} = 50 V, I _E = 0				
		V _{CB} = 30 V, I _E = 0				
Collector- emitter cut-off current EVBC846 EVBC847 EVBC848	I _{CE0}	V _{CE} = 60 V, I _E = 0			1	uA
		V _{CE} = 45 V, I _E = 0				
		V _{CE} = 30 V, I _E = 0				
Emitter cut-off current	I _{EB0}	V _{EB} = 5V, I _C =0			100	nA
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100 mA, I _B =5mA			0.4	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =100 mA, I _B =5mA			1.1	
DC current gain EVBC846A,847A,848A EVBC846B,847B,848B EVBC846C,847C,848C	h _{FE}	V _{CE} = 5V, I _C = 2mA	110		220	
			200		450	
			420		800	
Collector output capacitance	C _{ob}	V _{CB} = 10V, f= 1 MHz			4.5	pF
Transition frequency	f _T	V _{CE} = 5V, I _C = 10mA, f=100MHz	100			MHz

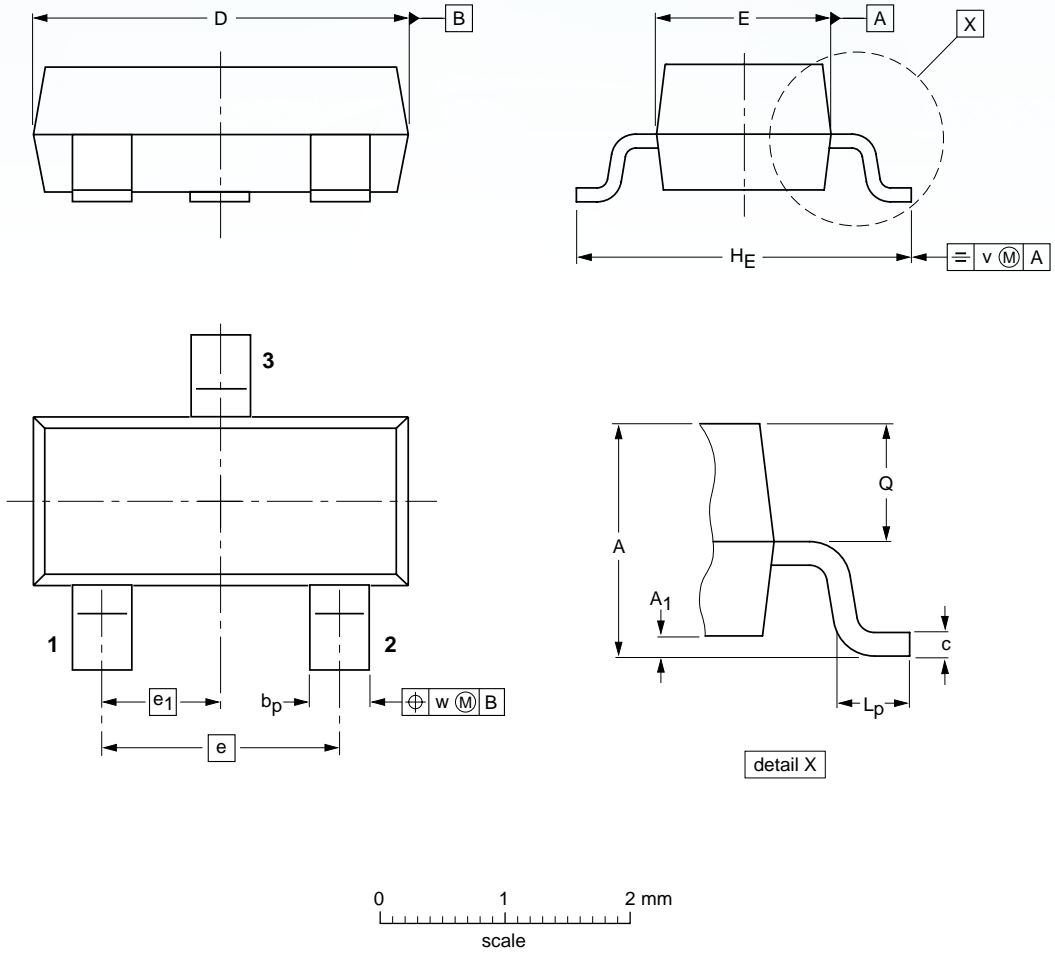
■ Classification of h_{FE}

Type	EVBC846A-S1	EVBC846B-S1	EVBC846C-S1	EVBC847A-S1	EVBC847B-S1	EVBC847C-S1	EVBC848A-S1	EVBC848B-S1	EVBC848C-S1
Range	110-220	220-450	420-800	110-220	220-450	420-800	110-220	220-450	420-800
Marking	1A	1B	1C	1E	1F	1G	1J	1K	1L

■ Typical Characteristics



■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

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