

# EVVOSEMI<sup>®</sup>

THINK CHANGE DO



ESD



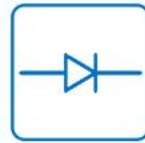
TVS



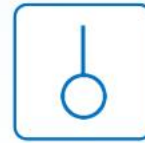
MOS



LDO



Diode



Sensor



DC-DC

## Product Specification

‣ Domestic	Part Number	EV2SC1623-XX-S1
‣ Overseas	Part Number	2SC1623-XX
Equivalent	Part Number	2SC1623-XX

"S1" means SOT-23

EV is the abbreviation of name EVVO

## ■ NPN Transistors

### ■ Features

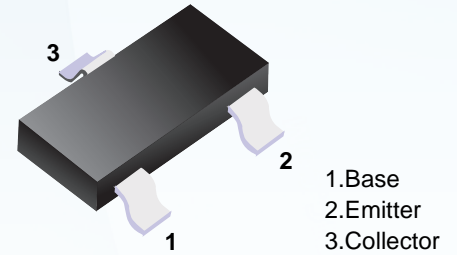
● High DC Current Gain:

$h_{FE} = 200$  TYP.

$V_{CE} = 6.0$  V,  $I_C = 1.0$  mA

● High Voltage:

$V_{CE\ O} = 50$  V



■ Simplified outline(SOT-23)

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	60	V
Collector to emitter voltage	$V_{CEO}$	50	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current (DC)	$I_C$	100	mA
Collector power dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

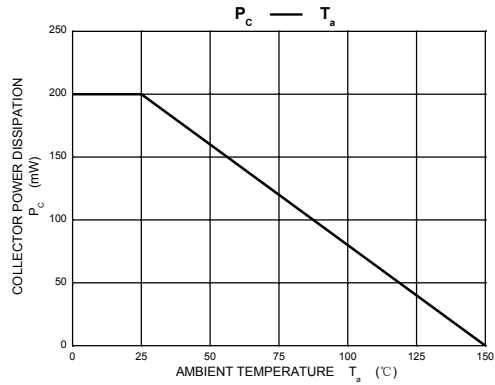
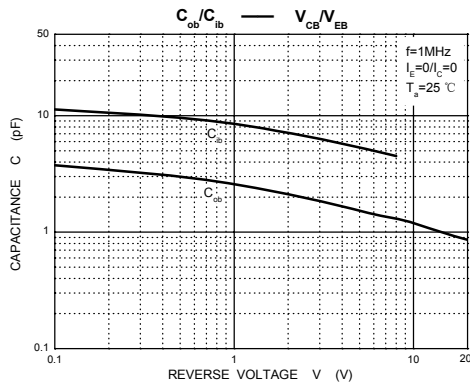
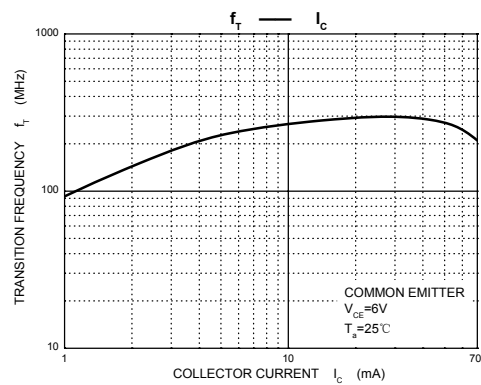
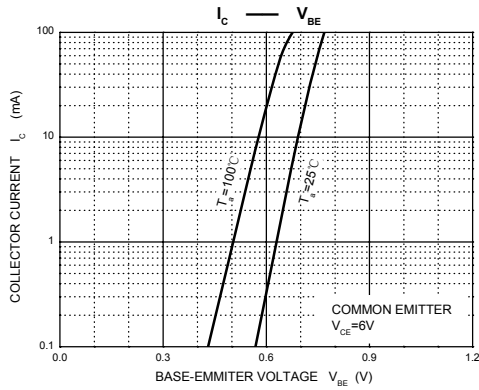
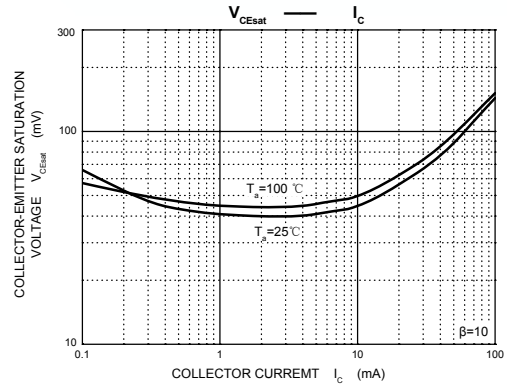
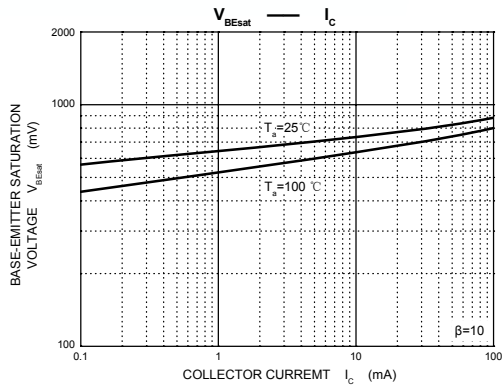
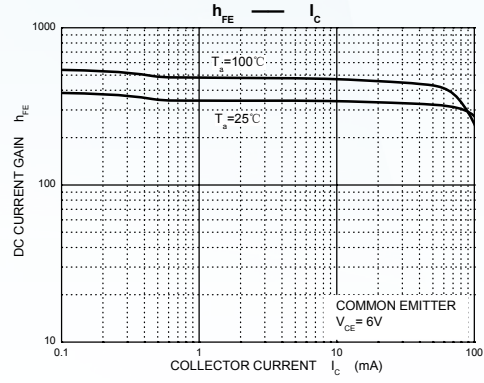
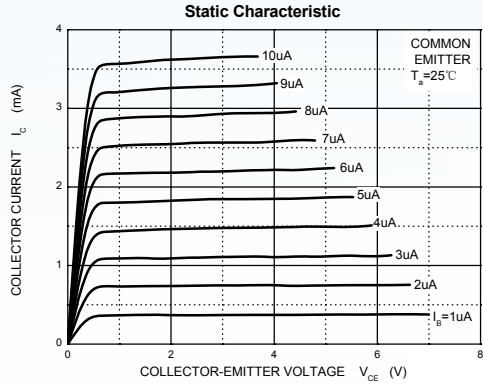
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_C = 100\ \mu\text{A}$ , $I_E = 0$	60			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = 1\ \text{mA}$ , $I_B = 0$	50			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100\ \mu\text{A}$ , $I_C = 0$	5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 60\ \text{V}$ , $I_E = 0$			100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\ \text{V}$ , $I_C = 0$			100	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 100\ \text{mA}$ , $I_B = 10\ \text{mA}$		0.15	0.3	V
Base - emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 100\ \text{mA}$ , $I_B = 10\ \text{mA}$		0.86	1	
Base - emitter voltage *	$V_{BE}$	$V_{CE} = 6\ \text{V}$ , $I_C = 1\ \text{mA}$	0.55		0.7	
DC current gain *	$h_{FE}$	$V_{CE} = 6\ \text{V}$ , $I_C = 1\ \text{mA}$	90	200	600	
Collector output capacitance	$C_{ob}$	$V_{CB} = 6\ \text{V}$ , $I_E = 0$ , $f = 1\ \text{MHz}$		3		pF
Transition frequency	$f_T$	$V_{CE} = 6\ \text{V}$ , $I_E = -10\ \text{mA}$		250		MHz

\*.  $PW \leq 350\ \mu\text{s}$ , duty cycle  $\leq 2\%$

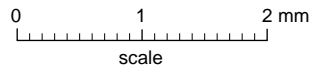
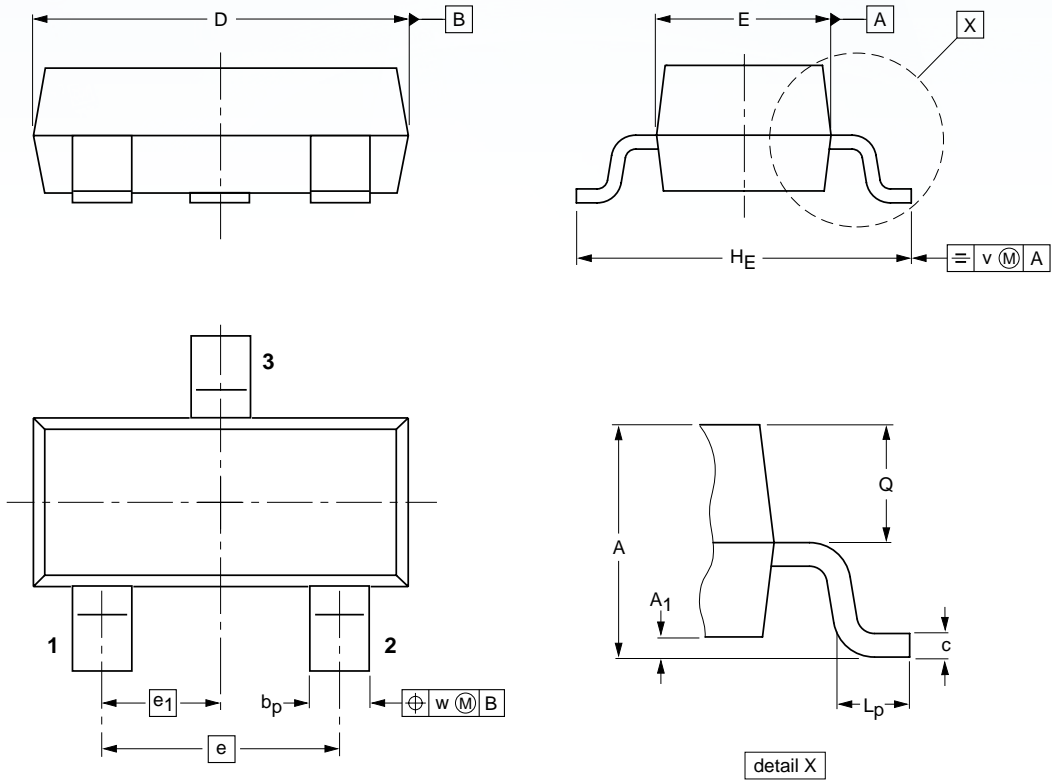
### ■ $h_{FE}$ Classification

Type	EV2SC1623-L4-S1	EV2SC1623-L5-S1	EV2SC1623-L6-S1	EV2SC1623-L7-S1
Range	90-180	135-270	200-400	300-600
Marking	L4	L5	L6	L7

■ Typical Characteristics



■ SOT-23



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	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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