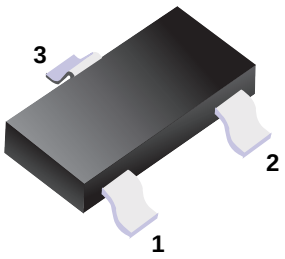
EVVOSEMI®
THINK CHANGE DO

S9018

NPN Transistors



1.Base
2.Emitter
3.Collector

■ **Simplified outline(SOT-23)**

■ Features

- High current gain bandwidth product.
- power dissipation.(PC=200mW)

■ Absolute Maximum Ratings Ta = 25 ℃

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	15	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current to Continuous	I_C	50	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55 to 150	℃

■ Electrical Characteristics Ta = 25

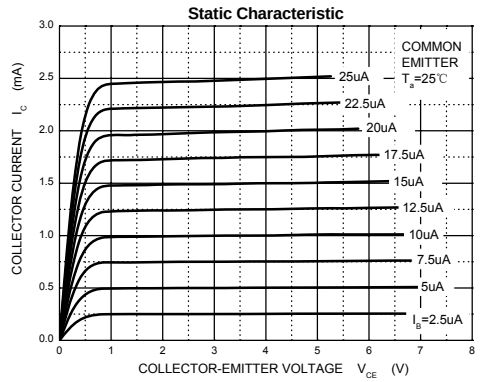
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	I_C= 100 uA, I_E=0	30			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 1mA, I_B=0	15			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E=100 uA, I_C=0	5			V
Collector cut to off current	I_{CBO}	V_{CB}=12V, I_E=0			0.05	uA
Emitter cut to off current	I_{EBO}	V_{EB}= 3V, I_C=0			0.1	uA
DC current gain	h_{FE}	V_{CE}=5V, I_C= 1mA	70		190	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B= 1mA			0.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA, I_B= 1mA			1.4	V
Transition frequency	f_T	V_{CE}=5V, I_C= 5mA,f=400MHz	600			MHz

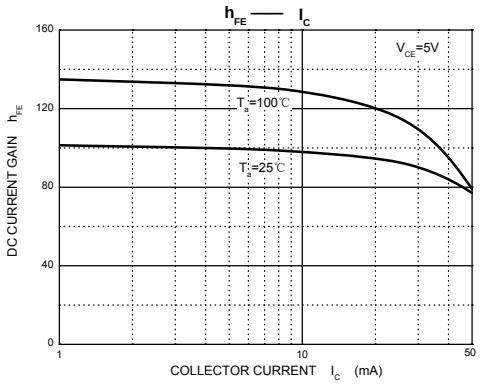
■ Classification of h_{fe}

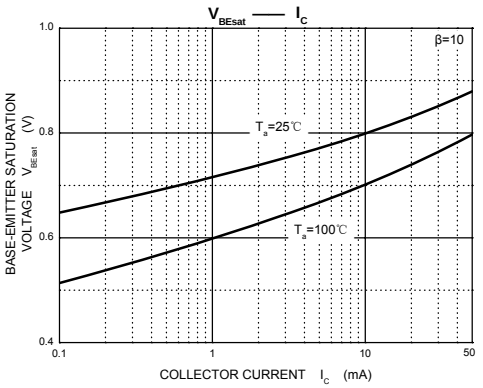
Type	S9018-L	S9018-H
Range	70-105	105-190
Marking	J8	

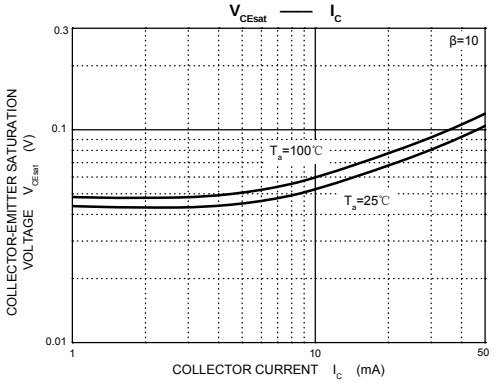
S9018

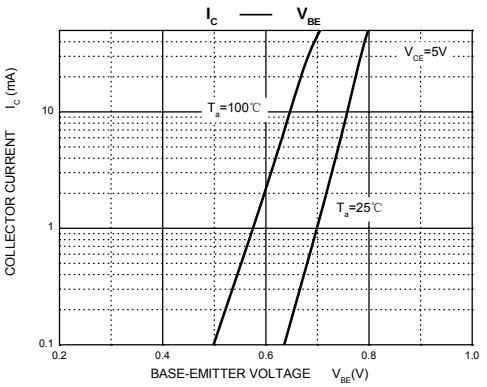
■ Typical Characteristics

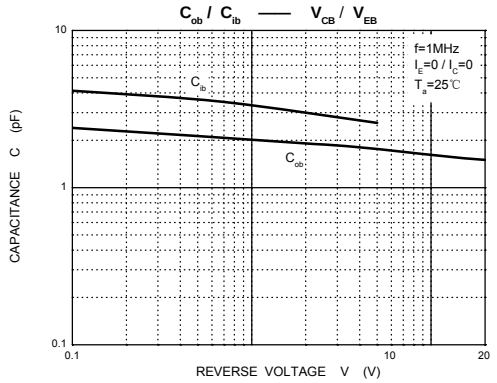


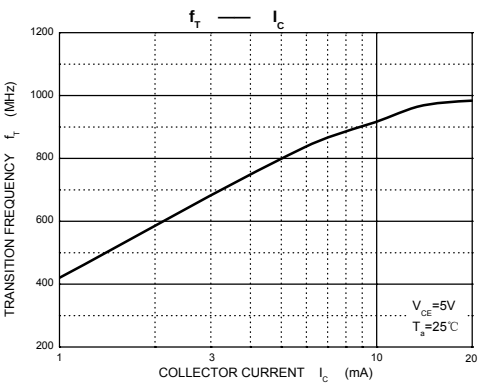


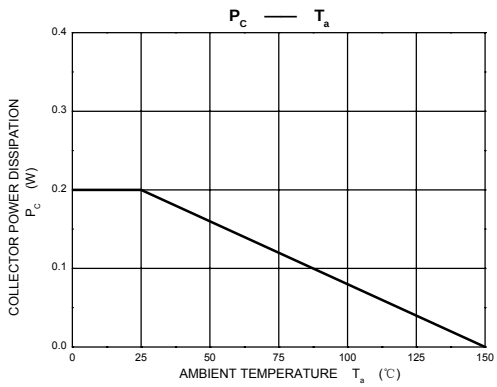




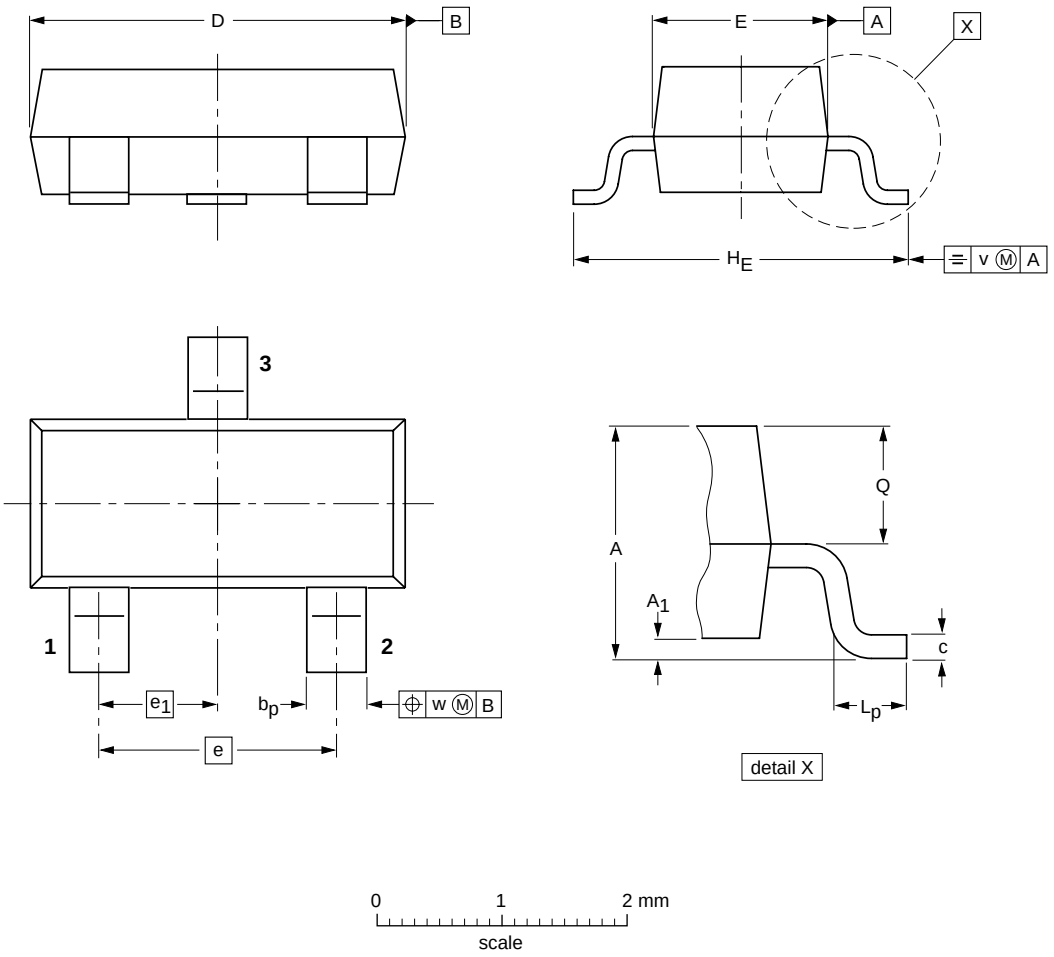








■ SOT-23



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