



## SSCN9018GS6

### NPN Switching Transistor

#### ➤ Features

VCB	VCE	VEB	IC
30V	15V	5V	50mA

#### ➤ Description

The NPN Transistor is designed for use in linear and switching applications. The device is housed in the SOT-23 package, which is designed for telephony and professional communication equipment.

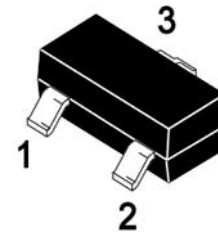
#### ➤ Applications

- General purpose switching and amplification
- Telephony and professional communication equipment

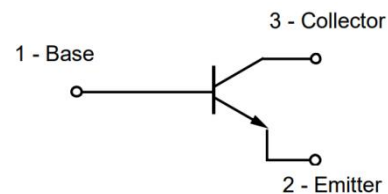
#### ➤ Ordering Information

Device	Package	Shipping
SSCN9018GS6	SOT-23	3000/Reel

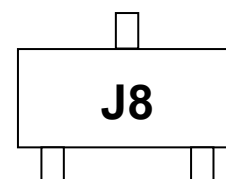
#### ➤ Pin configuration



**SOT-23**



**Circuit Diagram**



**Marking (Top View)**



➤ **Absolute Maximum Ratings ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

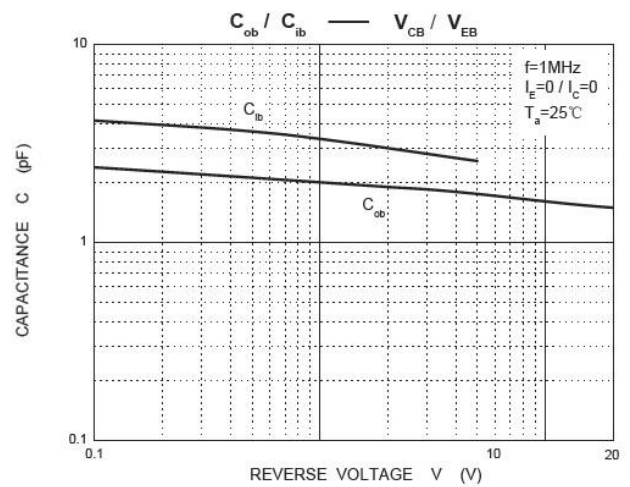
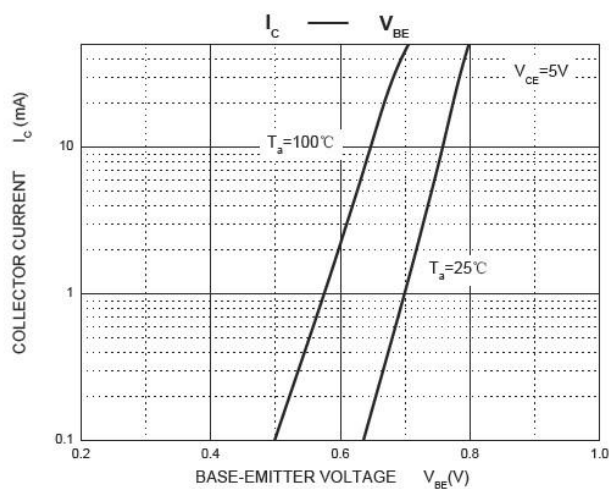
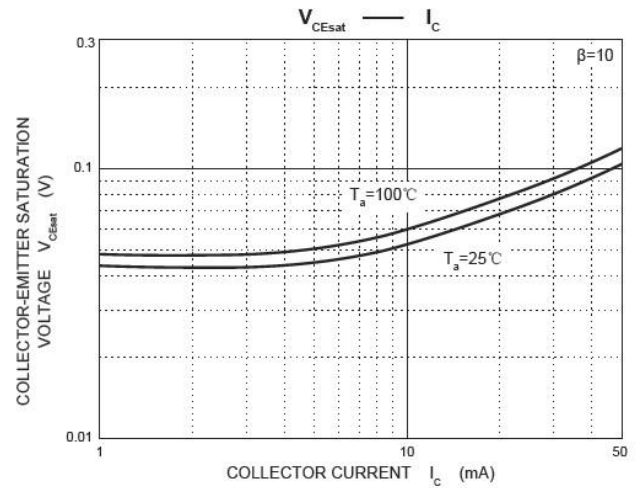
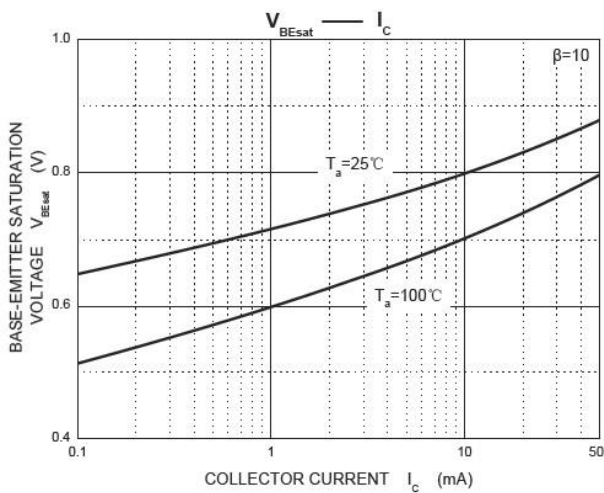
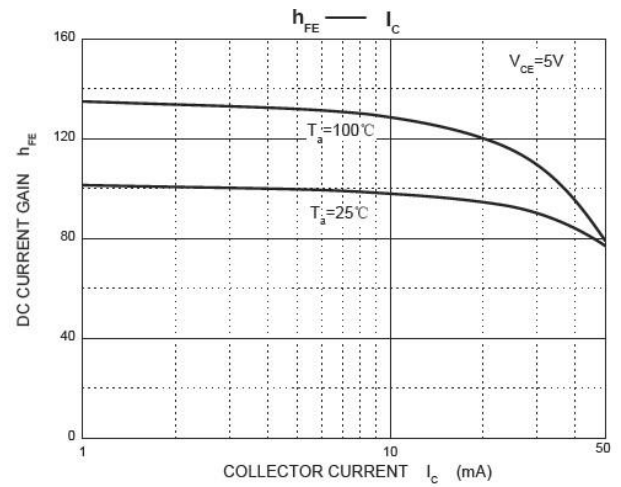
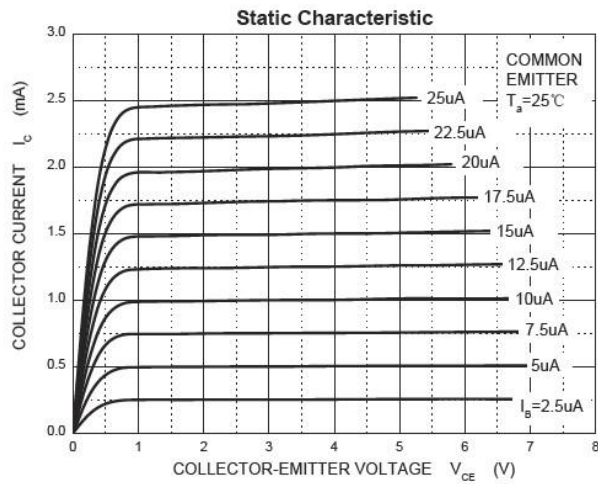
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	30	V
Collector- Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	50	mA
Collector Power Dissipation	$P_C$	200	mW
Junction Temperature	$T_J$	-55 to 150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^{\circ}\text{C}$

➤ **Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu\text{A}, I_E=0$	30			V
Collector-emitter Breakdown Voltage	$BV_{CEO}$	$I_C=1\text{mA}, I_B=0$	15			V
Emitter -Base Breakdown Voltage	$BV_{EBO}$	$I_E=100\mu\text{A}, I_C=0$	6			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=12\text{V}, I_E=0$			0.05	$\mu\text{A}$
Collector Cutoff Current	$I_{CEO}$	$V_{CE}=12\text{V}, I_B=0$			0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=1\text{mA}$	70		200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$			1.4	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=5\text{mA}$ $f=400\text{MHz}$		800		MHz

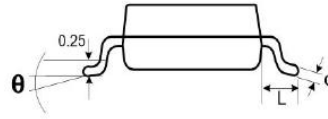
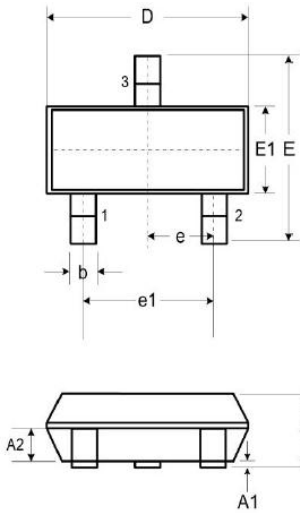


## ➤ Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)



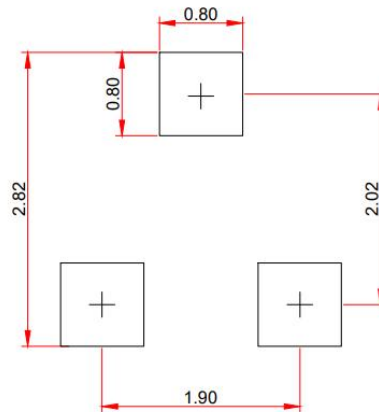


## ➤ Package Information



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	0.95		
e1	1.90		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

## Recommended Pad outline (Unit: mm)





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