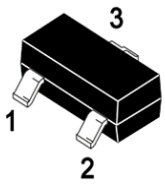
SSCP591GS6

PNP Switching Transistor

➢ Features

VCB	VCE	VEB	IC
-80V	-60V	-5V	-1A

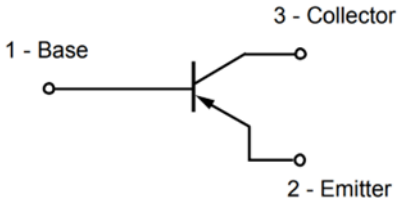
➢ Pin configuration



SOT-23

➢ Description

The PNP 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.



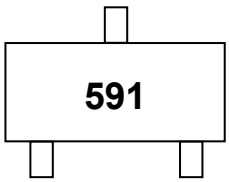
Circuit Diagram

➢ Applications

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

➢ Ordering Information

Device	Package	Shipping
SSCP591GS6	SOT-23	3000/Reel



Marking(Top View)

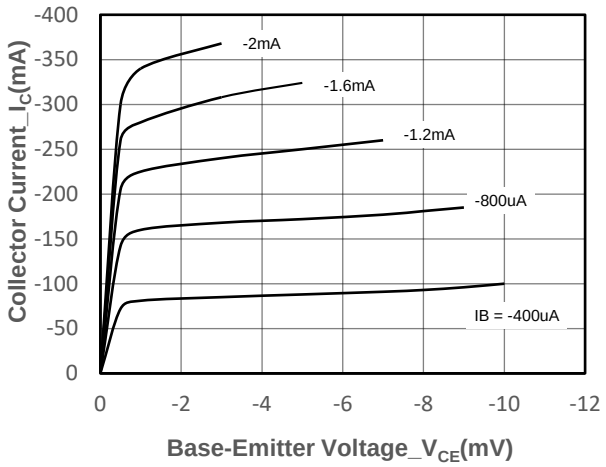
➢ Absolute Maximum Ratings(T_A = 25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-80	V
Collector- Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-1	A
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

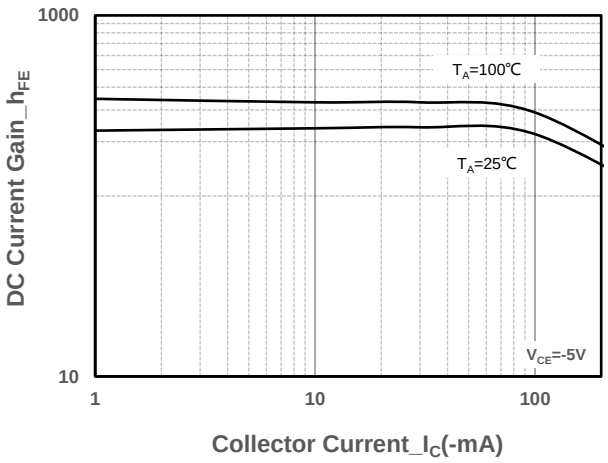
➢ Electrical Characteristics (T_A = 25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = -100uA, I_E = 0	-80			V
Collector-emitter Breakdown Voltage	BV_{CEO}	I_C = -10mA, I_B = 0	-60			V
Emitter -Base Breakdown Voltage	BV_{EBO}	I_E = -100uA, I_C = 0	-5			V
Collector Cutoff Current	I_{CBO}	V_{CB} = -60V, I_E = 0			-0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = -4V, I_C = 0			-0.1	μA
DC Current Gain	h_{FE1}	V_{CE} = -5V, I_C = -1mA	100			
	h_{FE2}	V_{CE} = -5V, I_C = -500mA	100		300	
	h_{FE3}	V_{CE} = -5V, I_C = -1A	80			
	h_{FE4}	V_{CE} = -5V, I_C = -2A	15			
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)1}$	I_C = -500mA, I_B = -50mA			-0.3	V
	$V_{CE\ (sat)2}$	I_C = -1A, I_B = -100mA			-0.6	V
Base-Emitter Saturation Base-Emitter	$V_{BE\ (sat)}$	I_B = -1A, I_C = -1A			-1.2	V
Base-Emitter Voltage	V_{BE}	V_{CE} = -5V,I_C = -1A			-1	V
Transition frequency	f_T	V_{CE} = -10V, I_C = -50mA f = 100MHz	150			MHz
Collector output capacitance	c_{ob}	V_{CB} = -10V f = 1MHz			10	pF

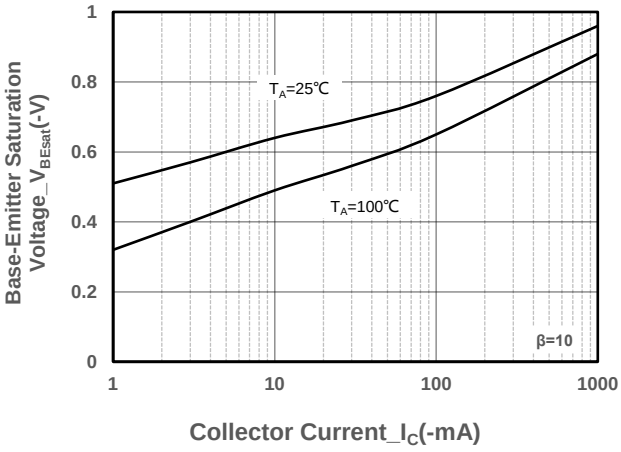
➢ Typical Performance Characteristics (T_A = 25℃ unless otherwise noted)



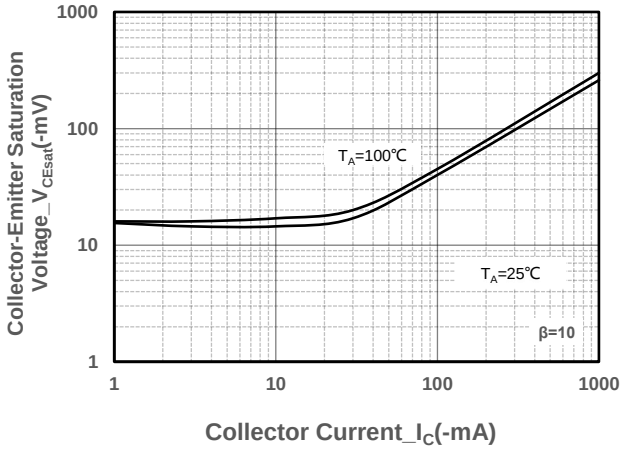
Collector Current vs. Base-Emitter Voltage



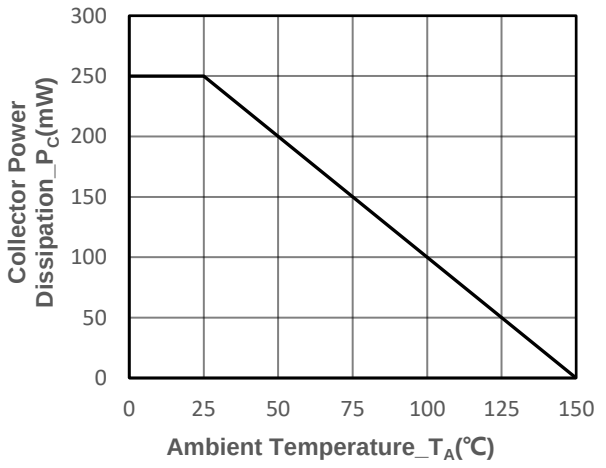
DC Current Gain vs. Collector Current



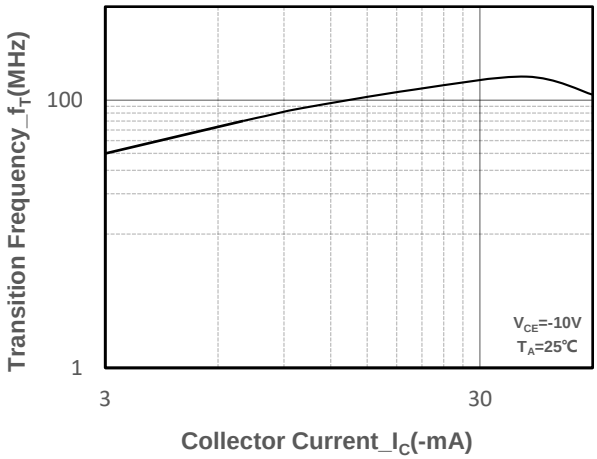
$V_{BE\ (sat)}$ vs. Collector Current



$V_{CE\ (sat)}$ vs. Collector Current



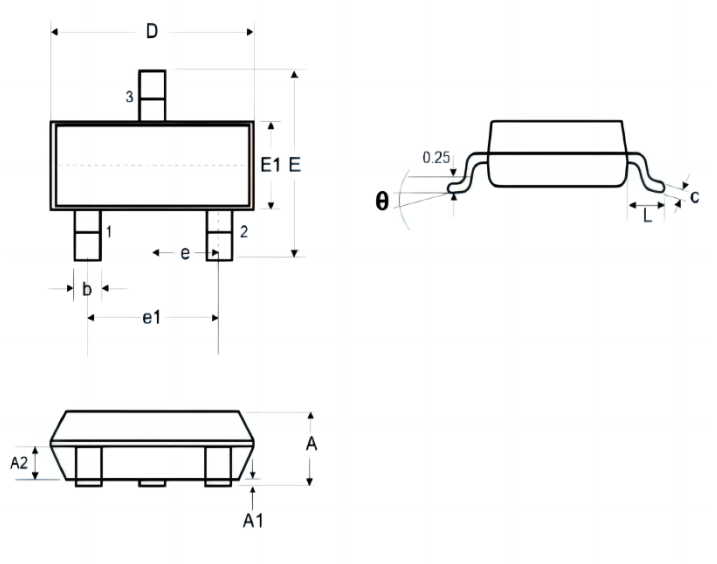
Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

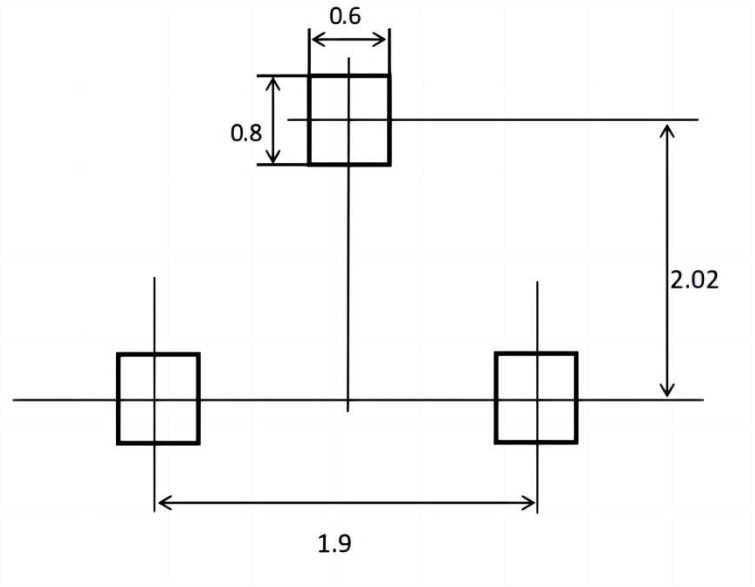
➢ Package Information

SOT-23



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	2.800	2.90	3.000
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	0.95		
e1	1.80	-	2.00
L	0.40	0.50	0.60
L1	0.30		0.50
θ	0°	-	8°

Recommended Pad outline (Unit: mm)



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