



SSCP3906GS7

PNP Switching Transistor

➤ Features

VCB	VCE	VBE	VCESAT	IC
-40V	-40V	-5V	-400mV	-200mA

➤ Description

The PNP Transistor is designed for use in linear and switching applications. The device is housed in the SOT-323 package, which is designed for telephony and professional communication equipment.

➤ Applications

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

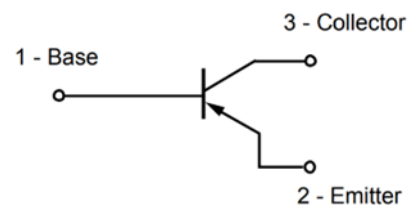
➤ Ordering Information

Device	Package	Shipping
SSCP3906GS7	SOT-323	3000/Reel

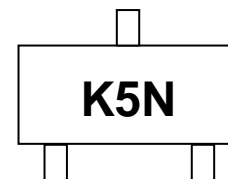
➤ Pin configuration



SOT-323



Circuit Diagram



Marking(Top View)



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

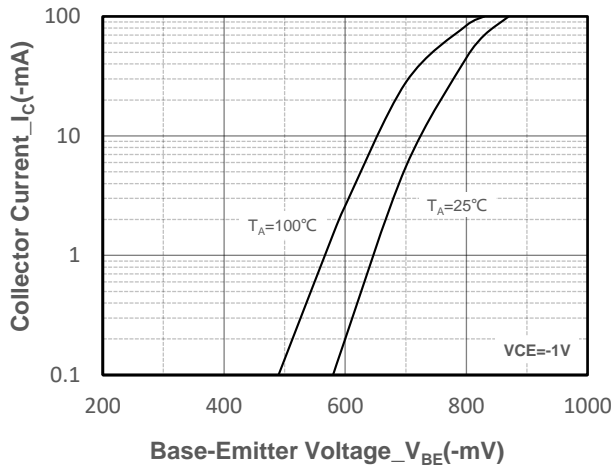
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-40	V
Collector- Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-200	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$

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

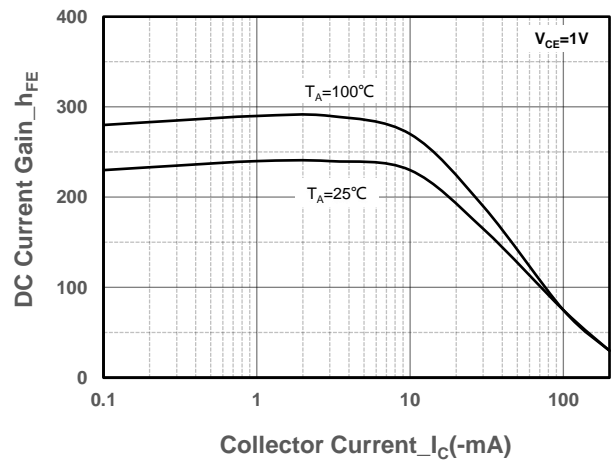
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=-10\mu\text{A}, I_E=0$	-40			V
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}, I_B=0$	-40			V
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector Cutoff Current	I_{CEX}	$V_{CE}=-30\text{V}, V_{EB}=-3\text{V}$			-50	nA
Collector Cutoff Current	I_{CBO}	$V_{CB}=-30\text{V}, I_E=0$			-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-3\text{V}, I_C=0$			-100	nA
DC Current Gain	h_{FE}	$V_{CE}=-1\text{V}, I_C=-10\text{mA}$	100		300	
		$V_{CE}=-1\text{V}, I_C=-0.1\text{mA}$	60			
		$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	30			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-0.95	V
Transition frequency	f_T	$V_{CE}=-20\text{V}, I_C=-10\text{mA}$ $f=100\text{MHz}$	250			MHz
Delay Time	t_d	$V_{CC}=-3\text{V}, V_{BE}=0.5\text{V}$			35	ns
Rise Time	t_r	$I_C=-10\text{mA}, I_{B1}=-1\text{mA}$			35	ns
Storage Time	t_s	$V_{CC}=-3\text{V}, I_C=-10\text{mA}$			225	ns
Fall Time	t_f	$I_{B1}=-I_{B2}=-1\text{mA}$			75	ns



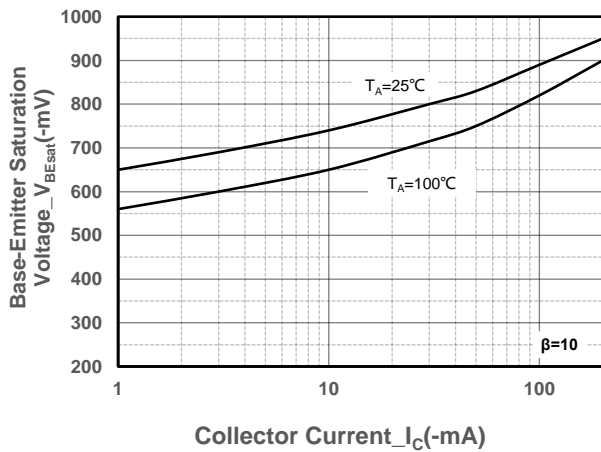
➤ **Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)**



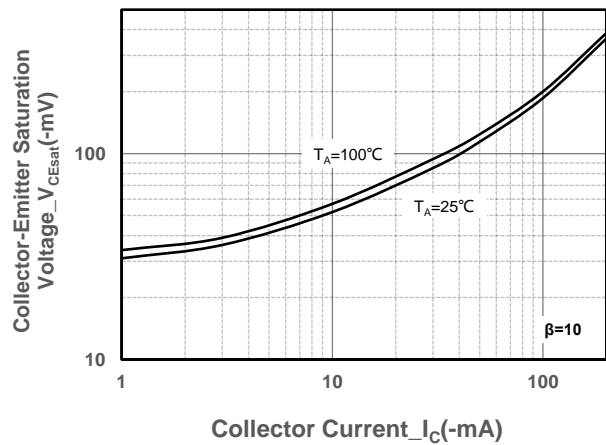
Collector Current vs. Base-Emitter Voltage



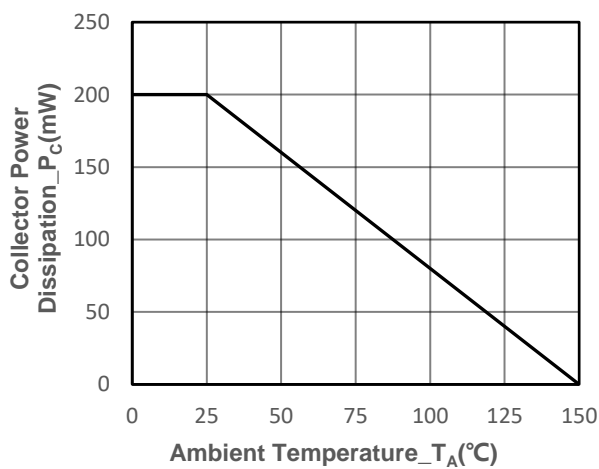
DC Current Gain vs. Collector Current



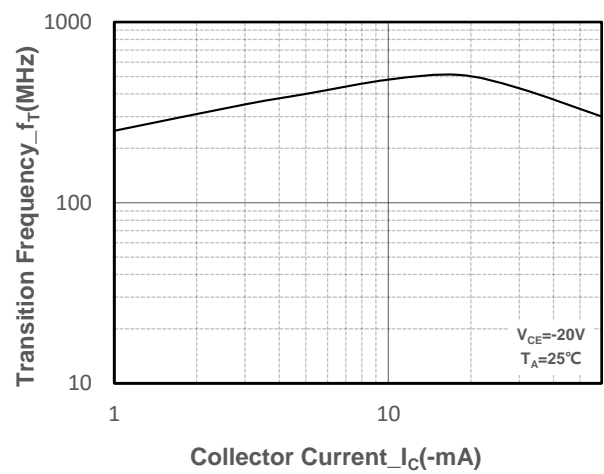
$V_{BE(sat)}$ vs. Collector Current



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

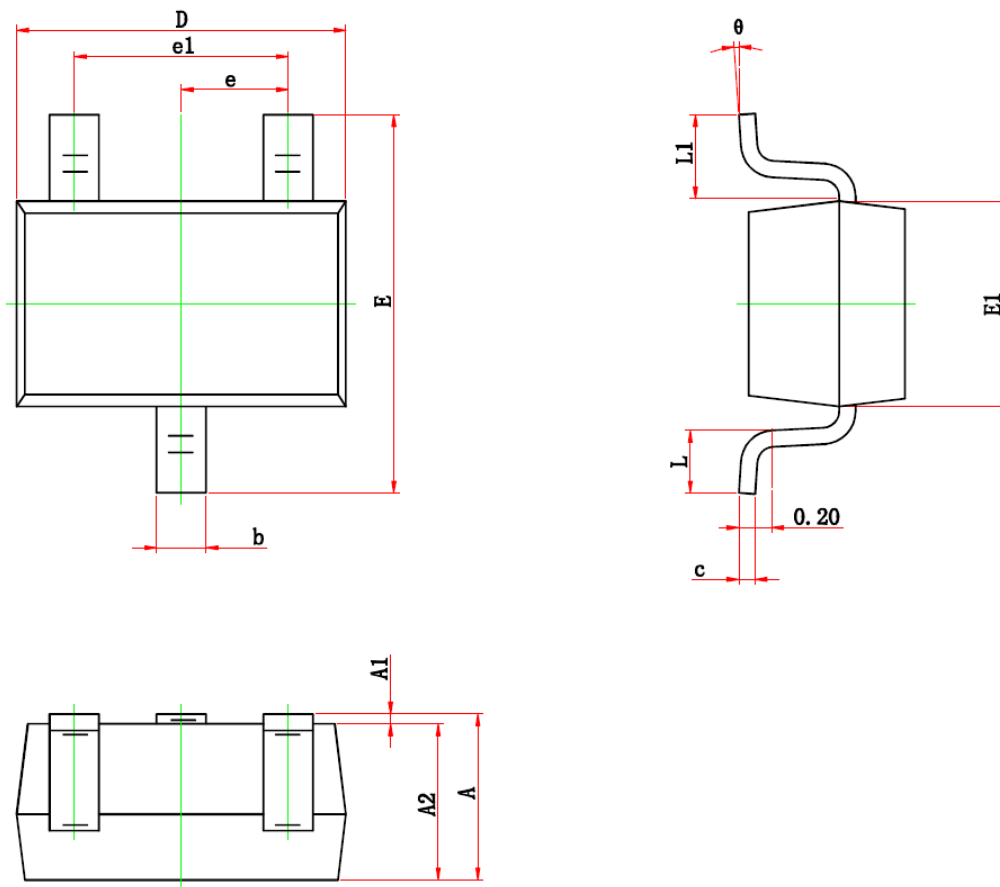


Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

● Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF.		0.021 REF.	
theta	0°	8°	0°	8°



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