



SSCP9015GS7

PNP Switching Transistor

➤ Features

VCB	VCE	VEB	IC
-50V	-45V	-5V	-100mA

➤ 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.

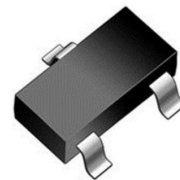
➤ Applications

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

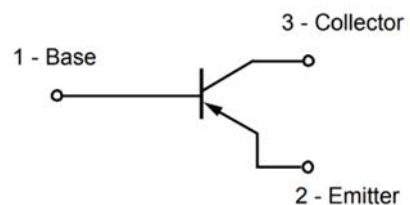
➤ Ordering Information

Device	Package	Shipping
SSCP9015GS7	SOT-323	3000/Reel

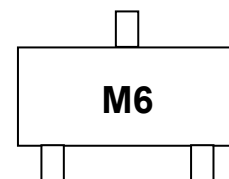
➤ Pin configuration



SOT-323



Circuit Diagram



Marking(Top View)



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

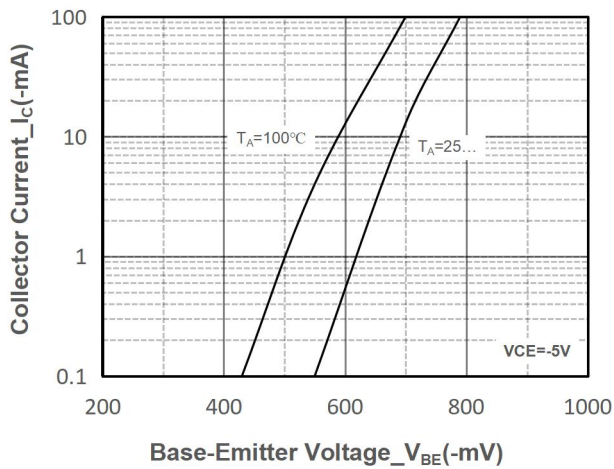
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-50	V
Collector- Emitter Voltage	V_{CE0}	-45	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current-Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$

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

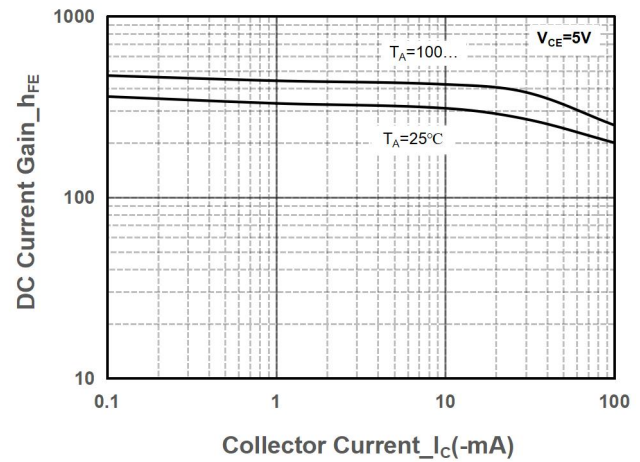
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=-100\mu\text{A}$, $I_E=0$	-50			V
Collector-emitter Breakdown Voltage	BV_{CE0}	$I_C=-1\text{mA}$, $I_B=0$	-45			V
Emitter -Base Breakdown Voltage	BV_{EB0}	$I_E=-100\mu\text{A}$, $I_C=0$	-5			V
Collector Cutoff Current	I_{CB0}	$V_{CB}=-50\text{V}$, $I_E=0$			-100	nA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=-5\text{V}$, $I_C=0$			-100	nA
DC Current Gain	h_{FE}	$V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$	200		1000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}$, $I_B=-10\text{mA}$			-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-100\text{mA}$, $I_B=-10\text{mA}$			-1.0	V
Transition frequency	f_T	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$ $f=30\text{MHz}$	150			MHz



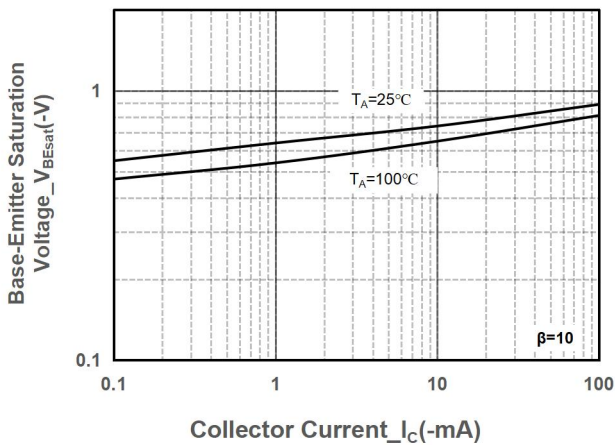
➤ **Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)**



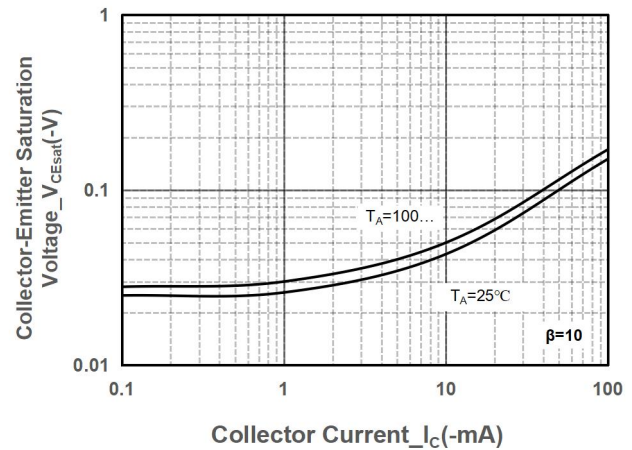
Collector Current vs. Base-Emitter Voltage



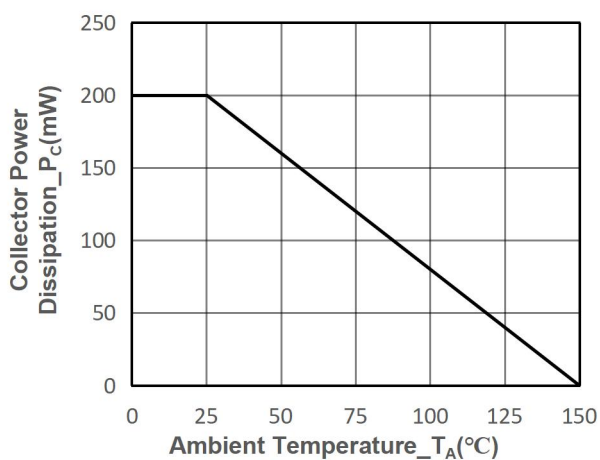
DC Current Gain vs. Collector Current



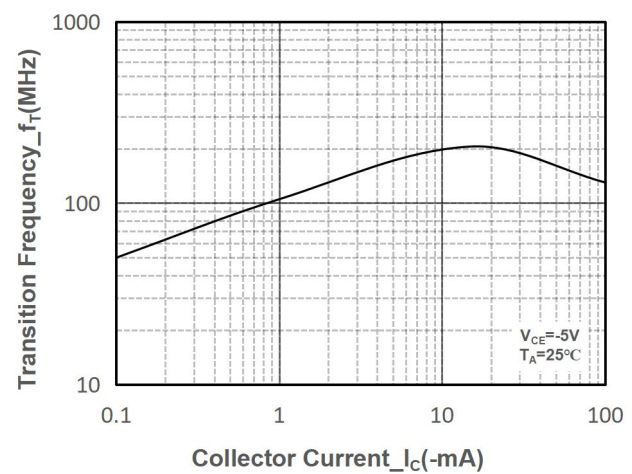
$V_{BE(sat)}$ vs. Collector Current



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



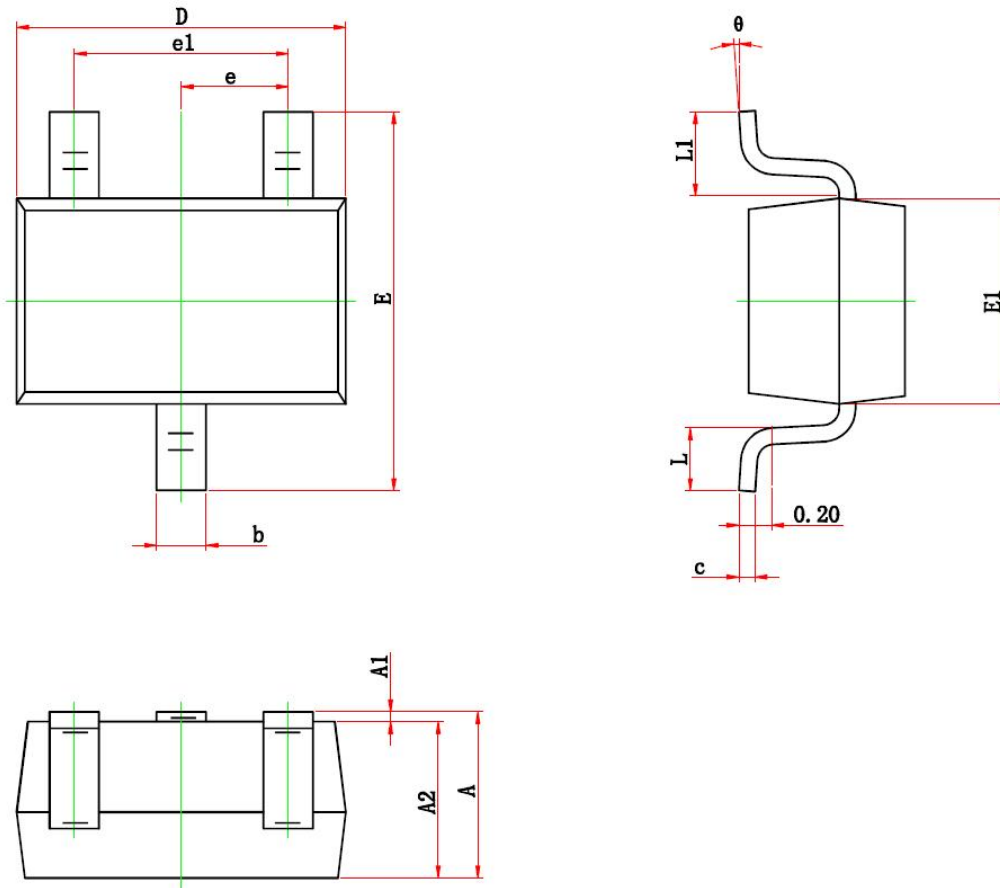
Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

➤ Package Information

SOT-323



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.	
θ	0°	8°	0°	8°



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