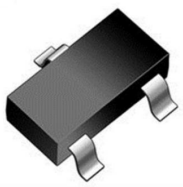
SSCP5401GS7

PNP Switching Transistor

➢ Features

VCB	VCE	VEB	IC
-160V	-150V	-6V	-600mA

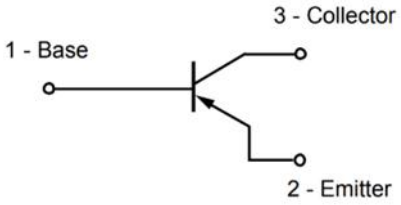
➢ Pin configuration



SOT-323

➢ Description

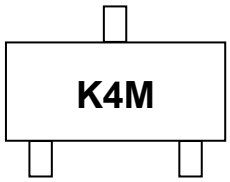
This device is designed for general-purpose high-voltage amplifiers and gas discharge display drivers. It is Ideal for medium power amplification and switching.



Circuit Diagram

➢ Applications

- General-purpose high-voltage amplifiers
- Gas discharge display drivers
- Medium power amplification and switching



Marking(Top View)

➢ Ordering Information

Device	Package	Shipping
SSCP5401GS7	SOT-323	3000/Reel

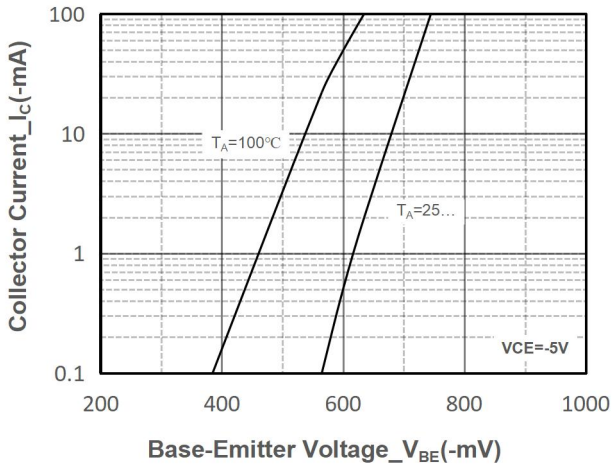
➢ Absolute Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector- Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

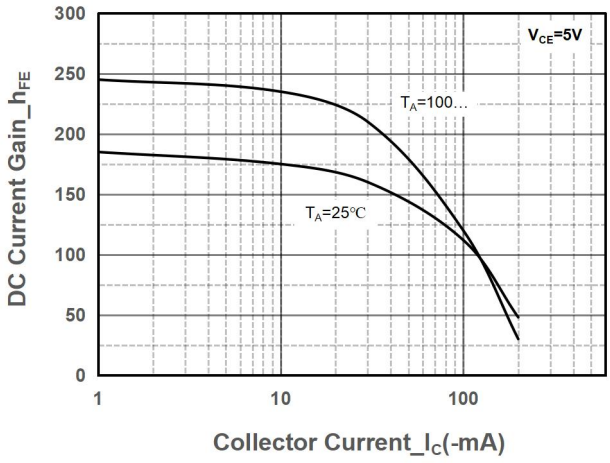
➢ Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-100uA, I_E=0	-160			V
Collector-emitter Breakdown Voltage	BV_{CEO}	I_C=-1mA, I_B=0	-150			V
Emitter -Base Breakdown Voltage	BV_{EBO}	I_E=-100uA, I_C=0	-5			V
Collector Cutoff Current	I_{CBO}	V_{CB}=-120V, I_E=0			-50	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=-4, I_C=0			-50	nA
DC Current Gain	h_{FE1}	V_{CE}=-5V, I_C=-1mA	50			
	h_{FE2}	V_{CE}=-5V, I_C=-10mA	100		300	
	h_{FE3}	V_{CE}=-5V, I_C=-50mA	50			
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)1}$	I_C=-50mA, I_B=-5mA			-0.5	V
	$V_{CE\ (sat)2}$	I_C=-10mA, I_B=-1mA			-0.2	V
Base-Emitter Saturation Voltage	$V_{BE\ (sat)1}$	I_C=-50mA, I_B=-5mA			-1.0	V
	$V_{BE\ (sat)2}$	I_C=-10mA, I_B=-1mA			-1.0	V
Collector output capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHz			6	pF
Transition frequency	f_T	V_{CE}=-5V, I_C=-10mA f=30MHz	100		300	MHz

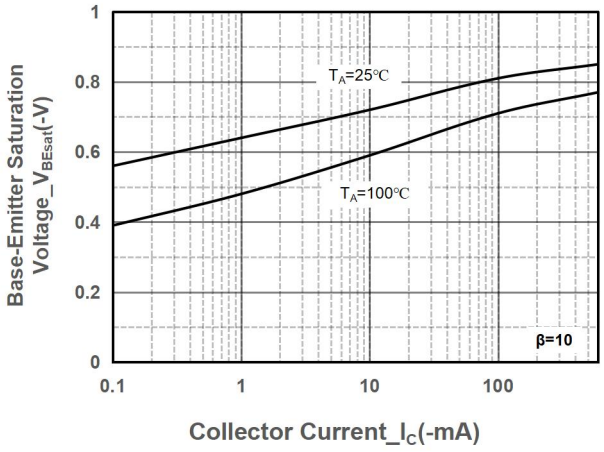
➢ Typical Performance Characteristics (T_A=25℃ unless otherwise noted)



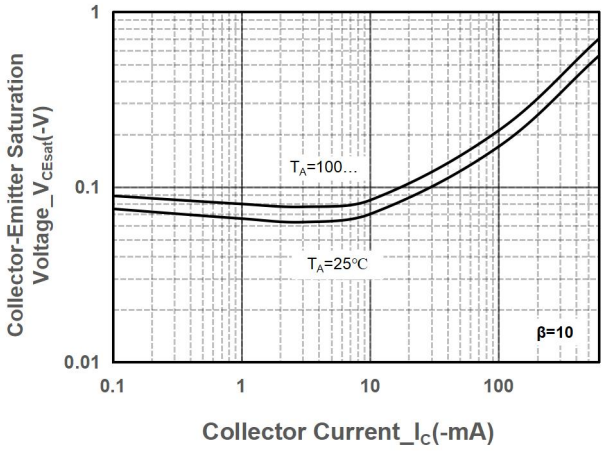
Collector Current vs. Base-Emitter Voltage



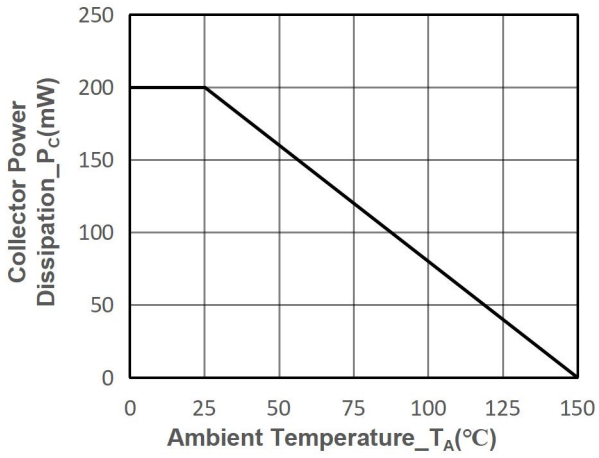
DC Current Gain vs. Collector Current



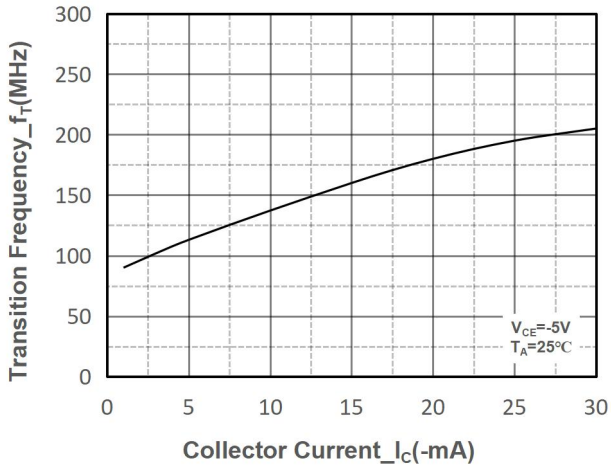
$V_{BE(sat)}$ vs. Collector Current



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



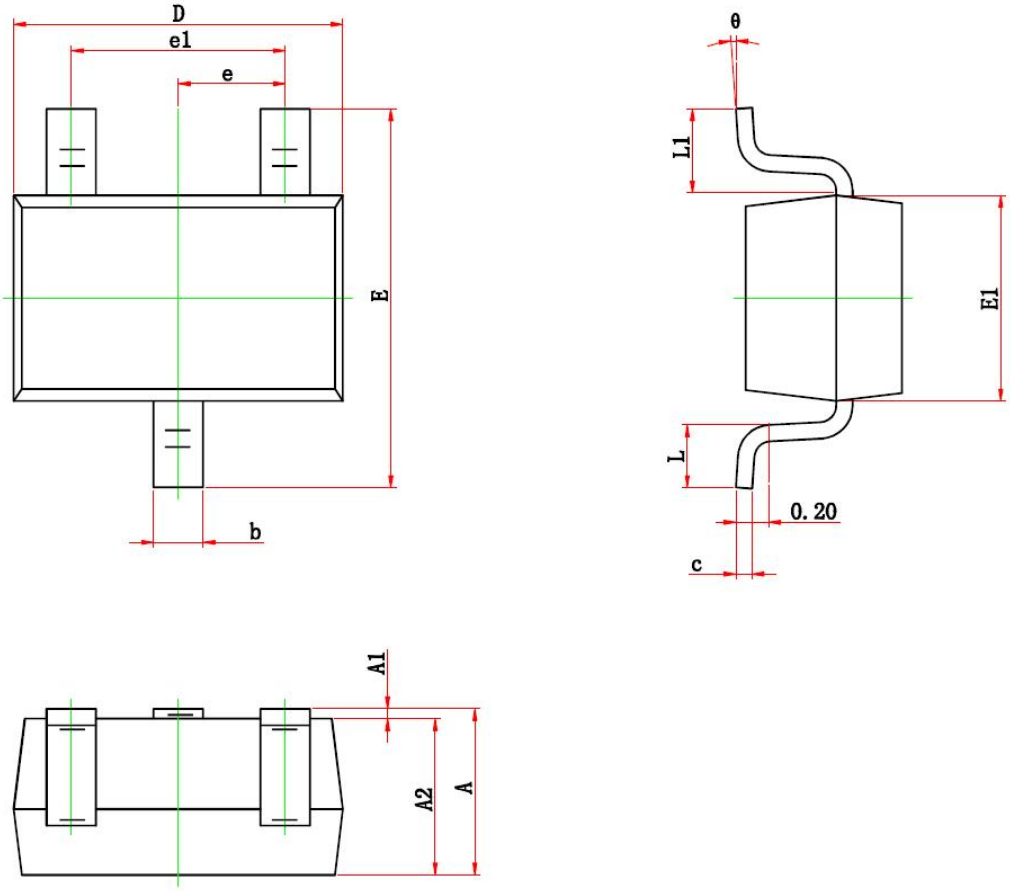
Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

➢ Package Information

SOT-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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