



SSCP4403GS6

PNP Switching Transistor

➤ Features

VCB	VCE	VEB	IC
-40V	-40V	-5V	-600mA

➤ 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.

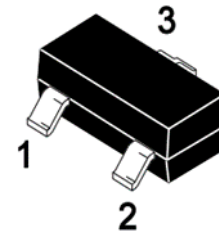
➤ Applications

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

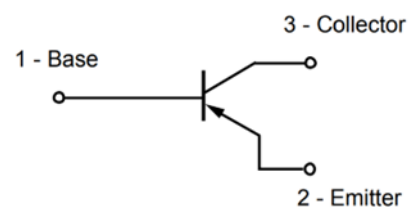
➤ Ordering Information

Device	Package	Shipping
SSCP4403GS6	SOT-23	3000/Reel

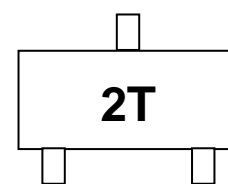
➤ Pin configuration



SOT-23



Circuit Diagram



Marking(Top View)



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

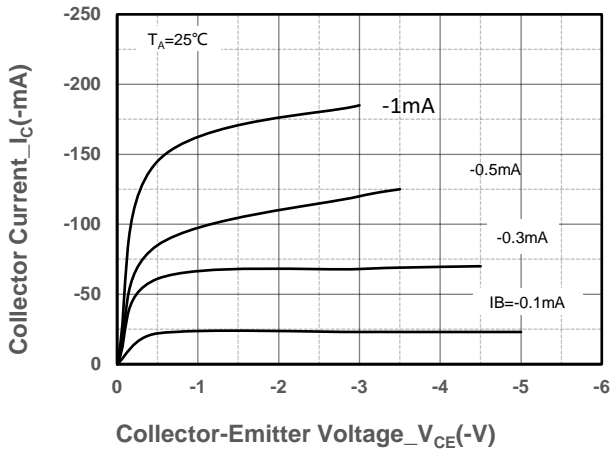
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-40	V
Collector- Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$
Thermal resistance From junction to ambient	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$

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

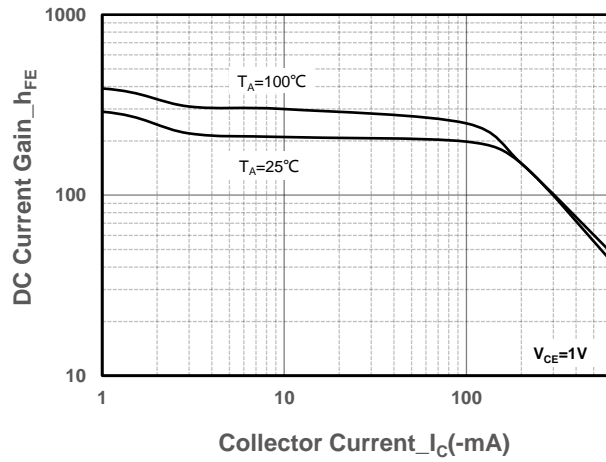
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}, I_B = 0$	-40			V
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -35\text{V}, I_E = 0$			-0.1	μA
Collector Cutoff Current	I_{CEX}	$V_{CE} = -35\text{V}, V_{EB(off)} = -0.4\text{V}$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -0.1\text{mA}$	30			
		$V_{CE} = -1\text{V}, I_C = -1\text{mA}$	60			
		$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100			
		$V_{CE} = -2\text{V}, I_C = -150\text{mA}$	100		300	
		$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	20			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$			-0.40	V
		$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.75	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$			-0.95	V
		$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.3	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -20\text{mA}$ $f = 100\text{MHz}$	200			MHz
Delay time	t_d	$V_{CC} = -30\text{V},$			15	ns
Rise time	t_r	$V_{BE(off)} = -0.5\text{V},$ $I_C = -150\text{mA}, I_{B1} = -15\text{mA}$			20	ns
Storage time	t_s	$V_{CC} = -30\text{V}, I_C = -150\text{mA},$			225	ns
Fall time	t_f	$I_{B1} = I_{B2} = -15\text{mA}$			60	ns



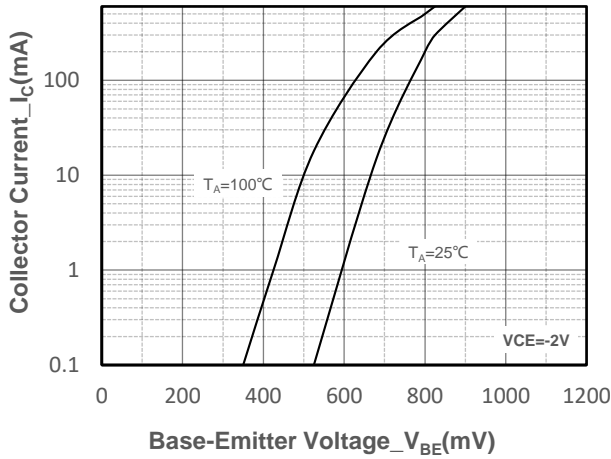
➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)



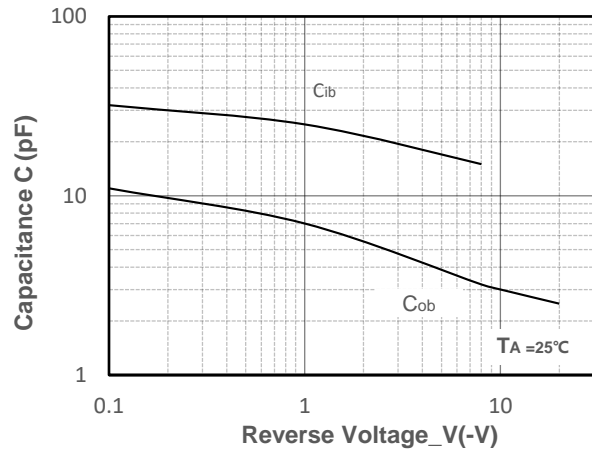
Collector Current vs. Collector-Emitter Voltage



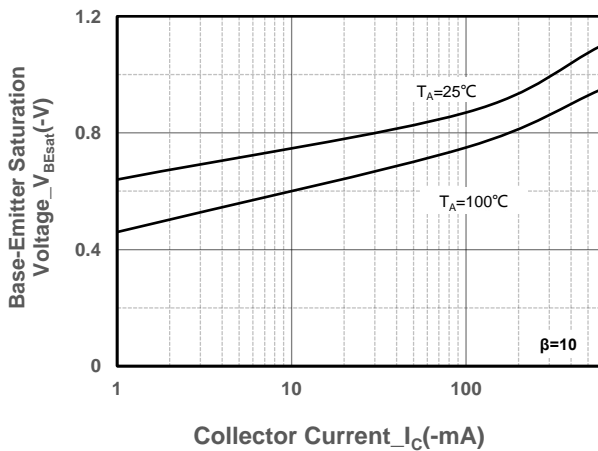
DC Current Gain vs. Collector Current



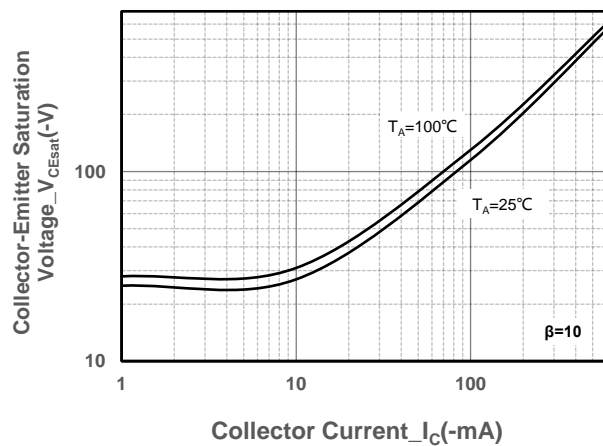
Collector Current vs. Base-Emitter Voltage



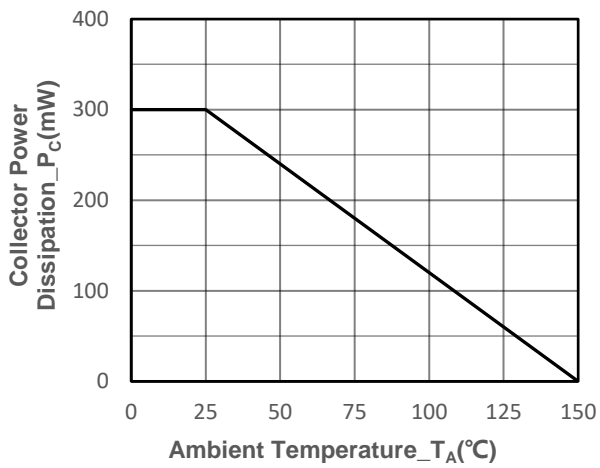
Capacitance vs. Reverse Voltage



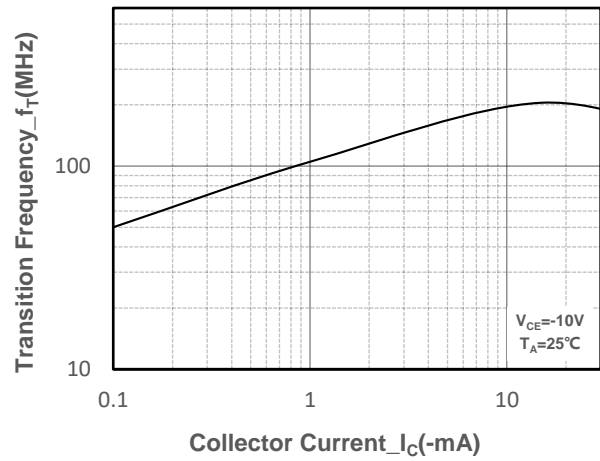
$V_{BE(sat)}$ vs. Collector Current



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



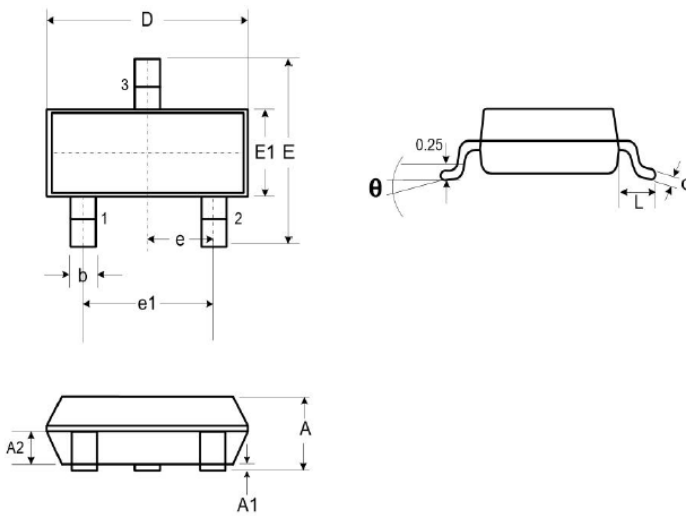
Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

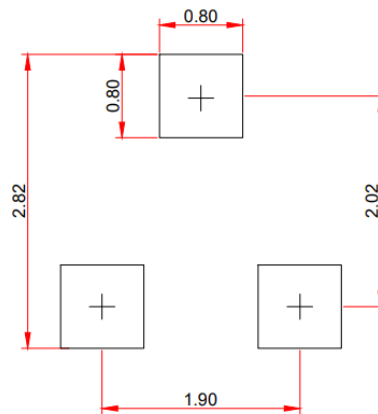


● **Package Information**



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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