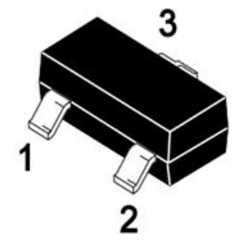
SSCP4403GS6

PNP Switching Transistor

➢ Features

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

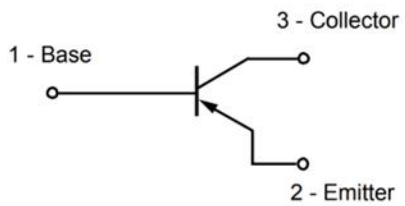
➢ Pin configuration



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.



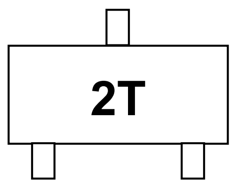
Circuit Diagram

➢ Applications

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

➢ Ordering Information

Device	Package	Shipping
SSCP4403GS6	SOT-23	3000/Reel



Marking(Top View)

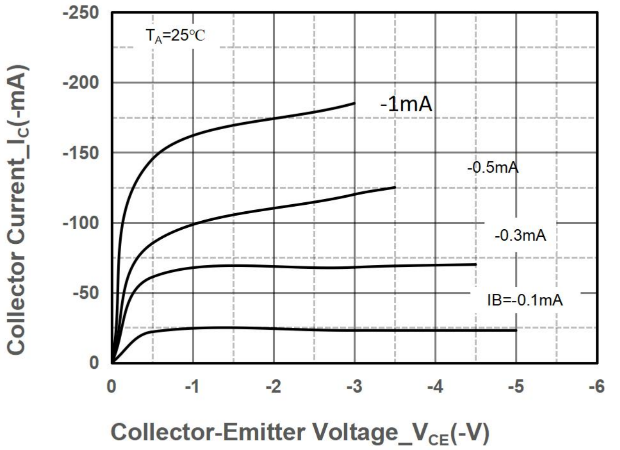
➢ Absolute Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-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	℃
Storage Temperature	T_{STG}	-55 to 150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	417	℃/W

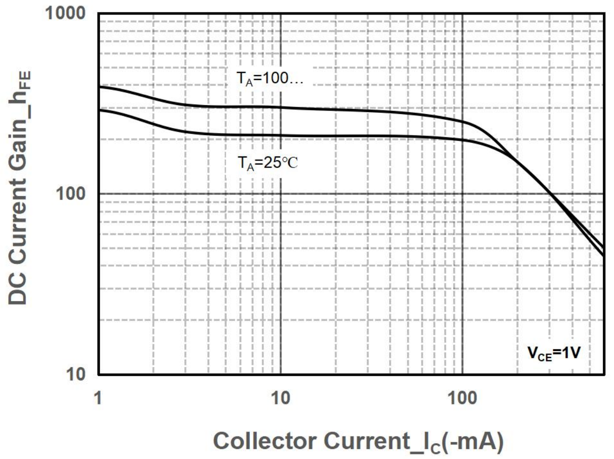
➢ Electrical Characteristics (T_A=25℃ unless otherwise noted)

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

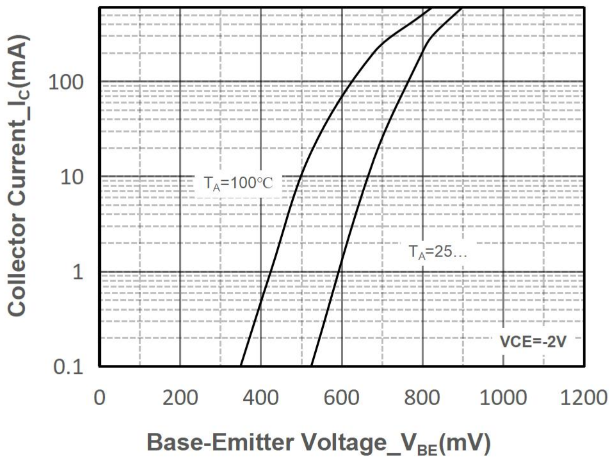
➢ Typical Performance Characteristics (T_A=25℃ unless otherwise noted)



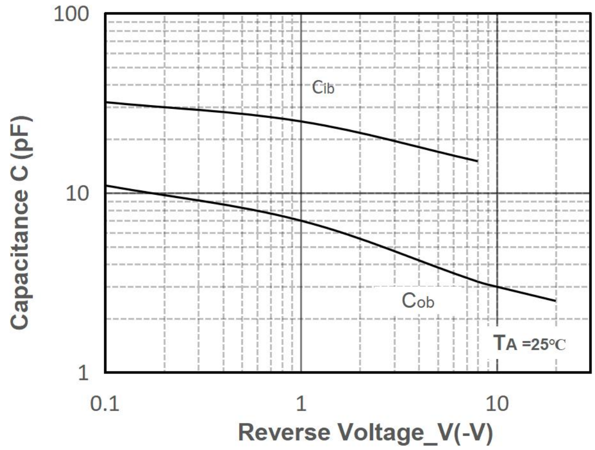
Collector Current vs. Collector-Emitter Voltage



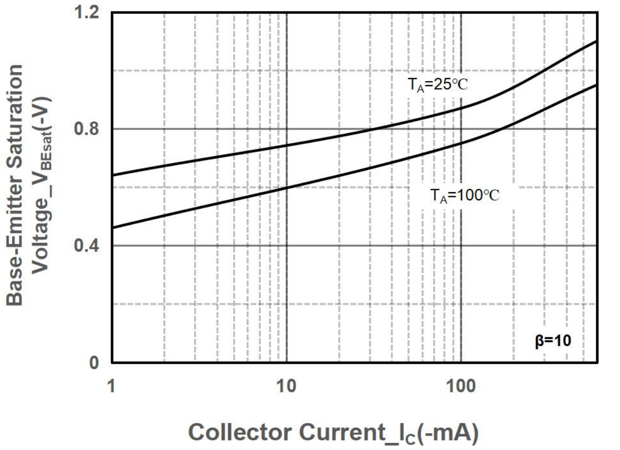
DC Current Gain vs. Collector Current



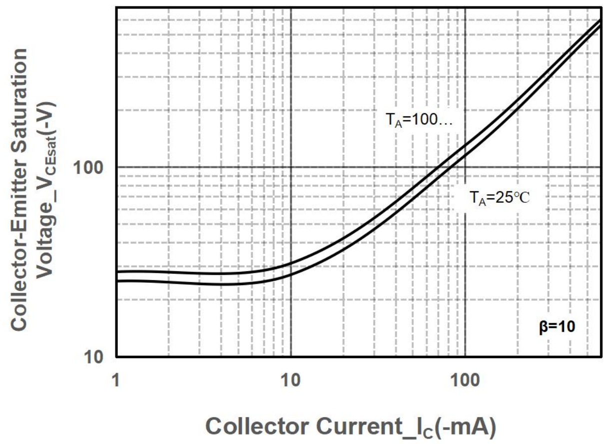
Collector Current vs. Base-Emitter Voltage



Capacitance vs. Reverse Voltage

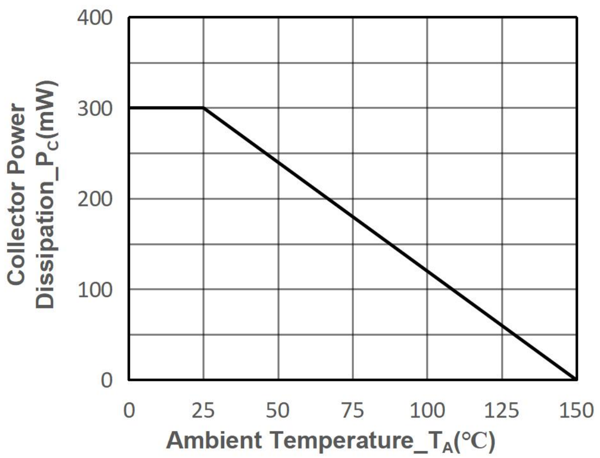


$V_{BE(sat)}$ vs. Collector Current

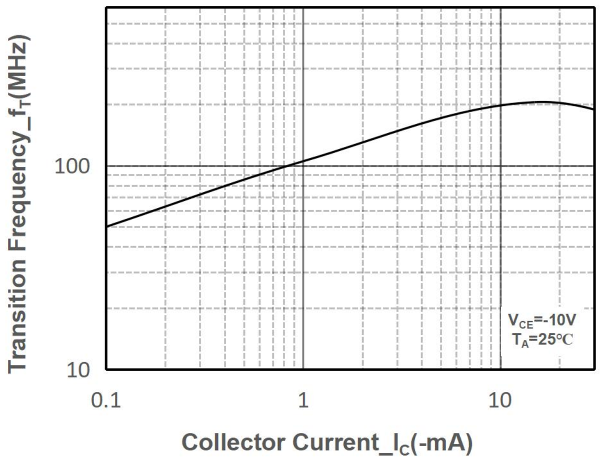


$V_{CE(sat)}$ vs. Collector Current

Collector Current vs. Collector-Emitter Voltage

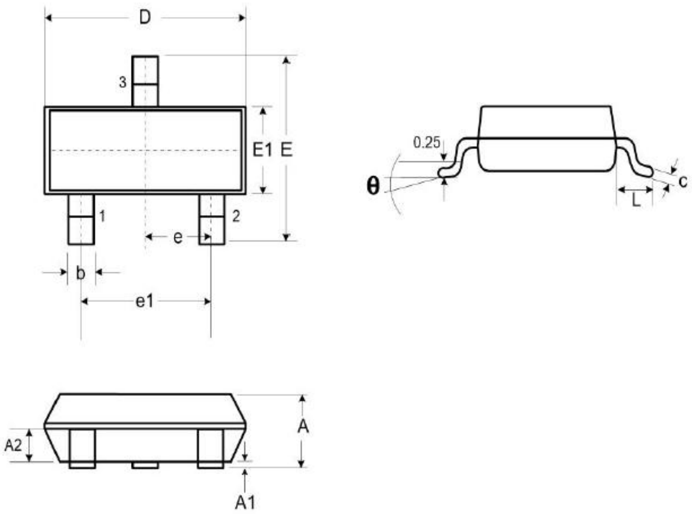


Power derating vs. Ambient temperature



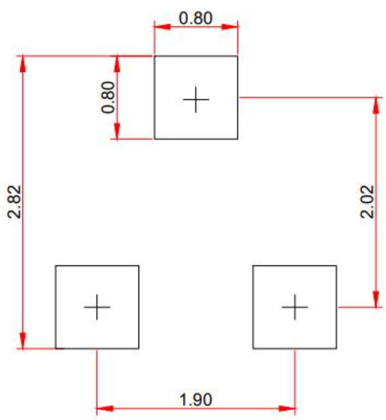
Transition Frequency vs. Collector Current

- **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
e1	1.90		
e	0.95		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline(Unit: mm)



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