



SSCPA56GS6

PNP Switching Transistor

➤ Features

VCB	VCE	VEB	IC
-80V	-80V	-4V	-500mA

➤ 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

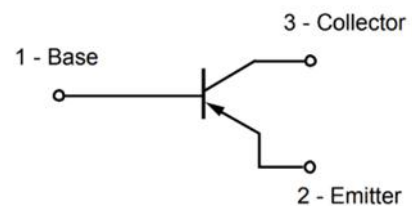
➤ Ordering Information

Device	Package	Shipping
SSCPA56GS6	SOT-23	3000/Reel

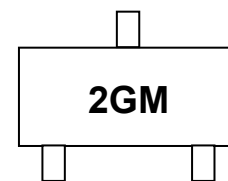
➤ Pin configuration



SOT-23



Circuit Diagram



Marking(Top View)



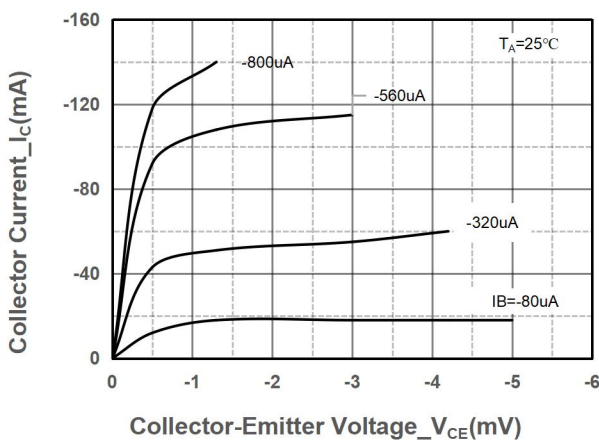
➤ **Absolute Maximum Ratings**($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-80	V
Collector- Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-4	V
Collector Current-Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	350	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	$R_{\theta JA}$	555	$^\circ\text{C/W}$

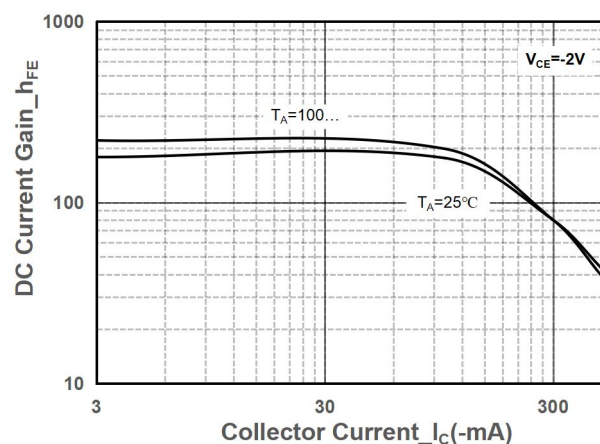
➤ **Electrical Characteristics** ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=-100\mu\text{A}, I_E=0$	-80			V
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}, I_B=0$	-80			V
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E=-100\mu\text{A}, I_C=0$	-4			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=-80\text{V}, I_E=0$			-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-100	nA
Collector Cutoff Current	I_{CEO}	$V_{CE}=-60\text{V}, I_B=0$			-1	μA
DC Current Gain	h_{FE}	$V_{CE}=-1\text{V}, I_C=-10\text{mA}$	100		400	
		$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	100			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B = -10\text{mA}$			-0.25	V
Base-Emitter Voltage	$V_{BE(sat)}$	$V_{CE}=-1\text{V}, I_B=-100\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$ $f=100\text{MHz}$	50			MHz

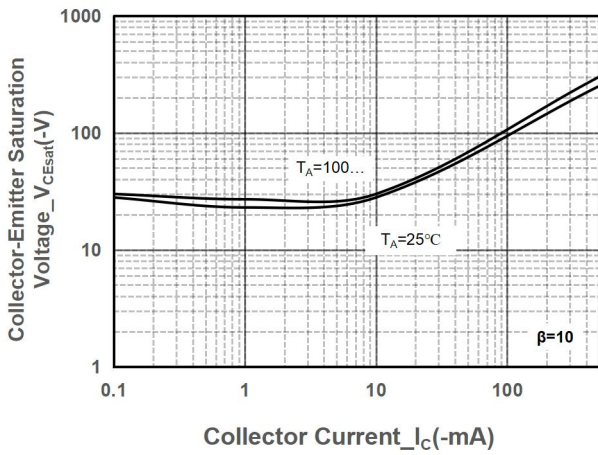
➤ **Typical Performance Characteristics** ($T_A=25^\circ\text{C}$ unless otherwise noted)



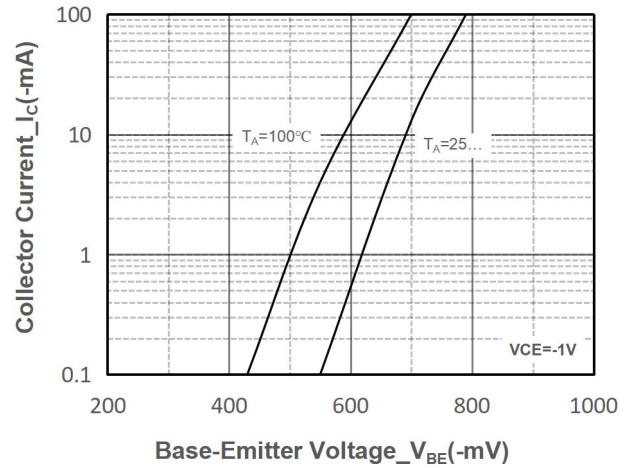
Collector Current vs. Collector-Emitter Voltage



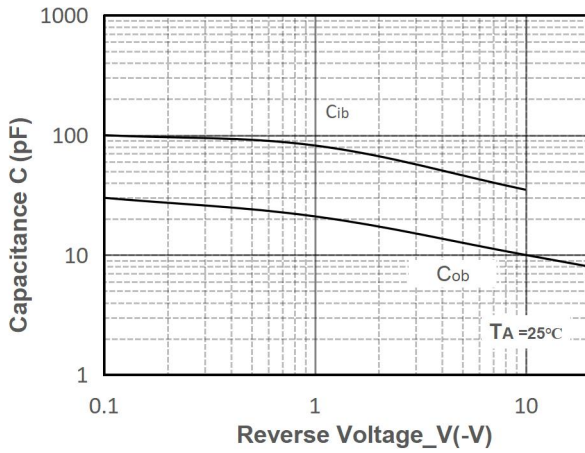
DC Current Gain vs. Collector Current



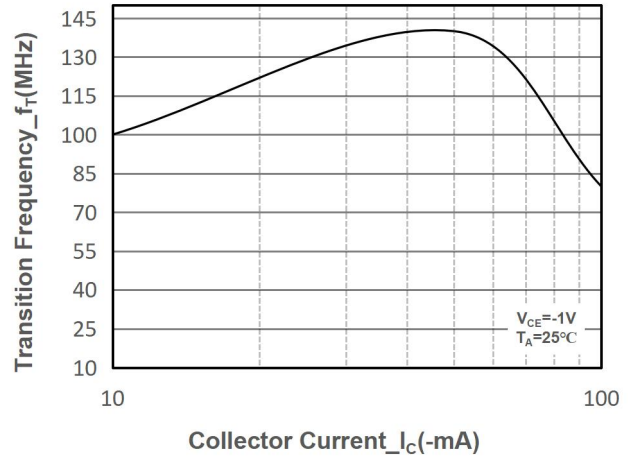
V_{CE (sat)} vs. Collector Current



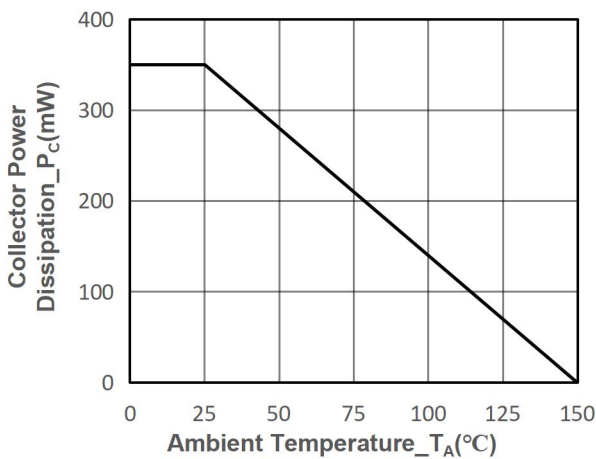
Collector Current vs. Base-Emitter Voltage



Capacitance vs. Reverse Voltage

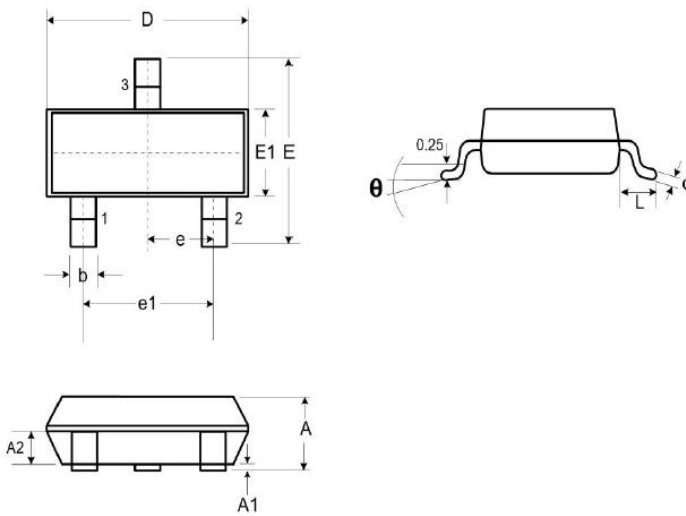


Transition Frequency vs. Collector Current



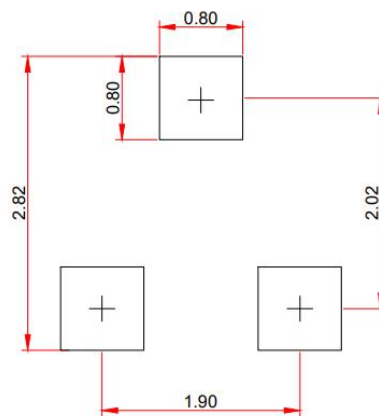
Power derating vs. Ambient temperature

➤ 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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