



## 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.

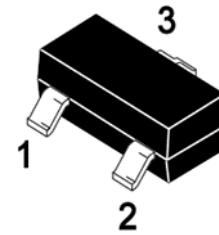
#### ➤ Applications

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

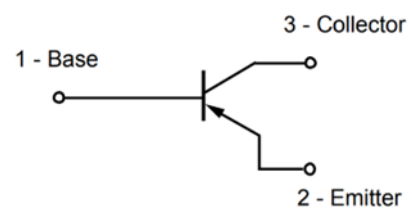
#### ➤ Ordering Information

Device	Package	Shipping
SSCPA56GS6	SOT-23	3000/Reel

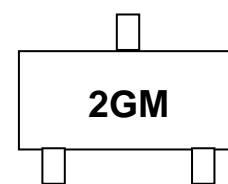
#### ➤ Pin configuration



**SOT-23**



**Circuit Diagram**



**Marking(Top View)**



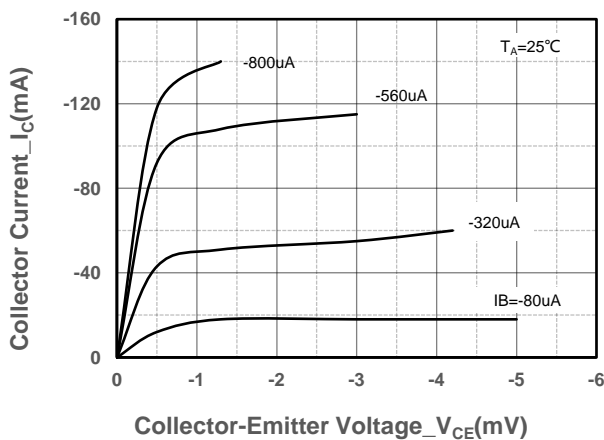
➤ **Absolute Maximum Ratings**( $T_A=25^\circ\text{C}$  unless otherwise noted)

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	$^\circ\text{C/W}$

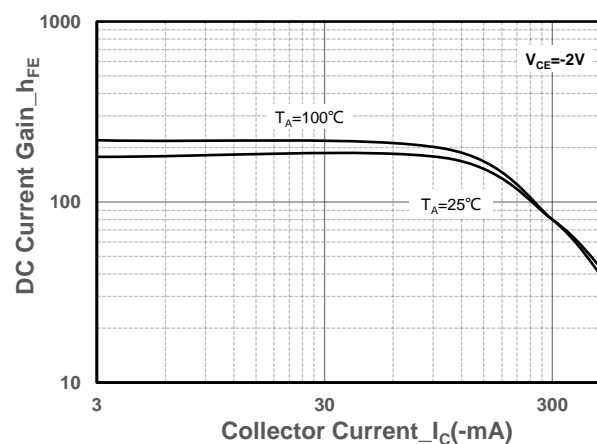
➤ **Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

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	$\mu\text{A}$
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

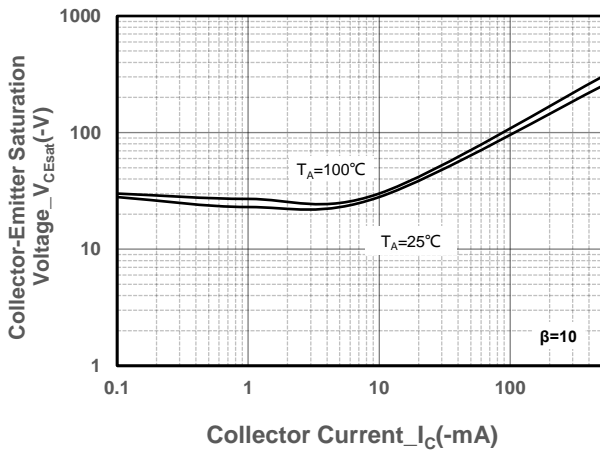
➤ **Typical Performance Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted)



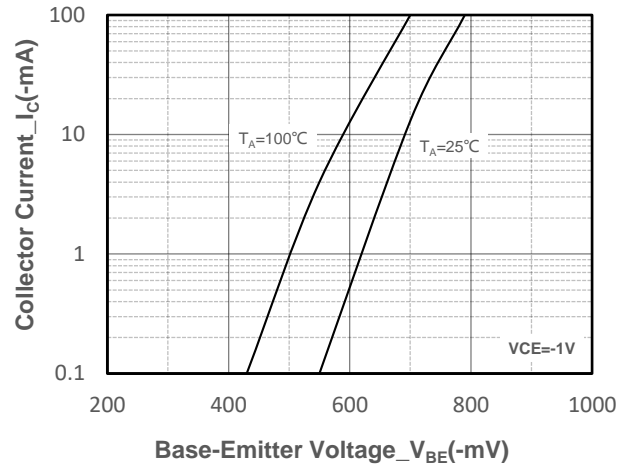
Collector Current vs. Collector-Emitter Voltage



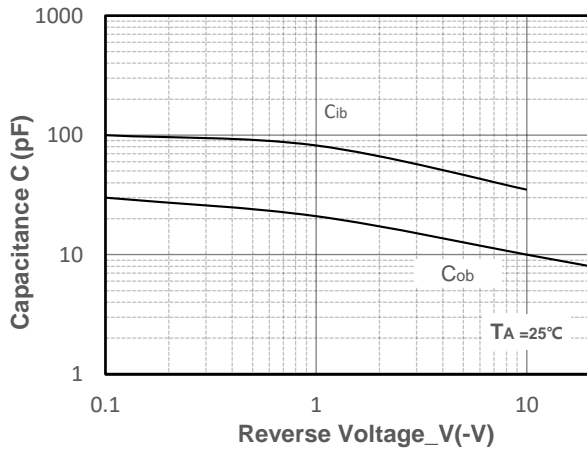
DC Current Gain vs. Collector Current



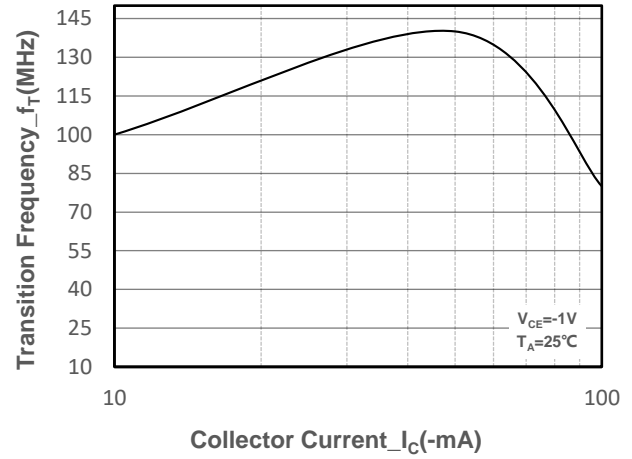
**V<sub>CE (sat)</sub> vs. Collector Current**



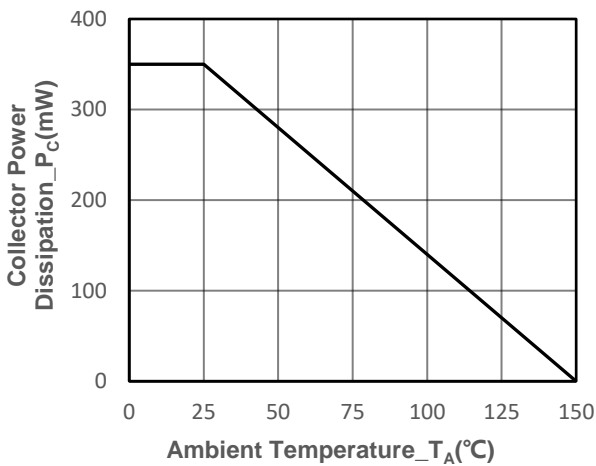
**Collector Current vs. Base-Emmitter Voltage**



**Capacitance vs. Reverse Voltage**

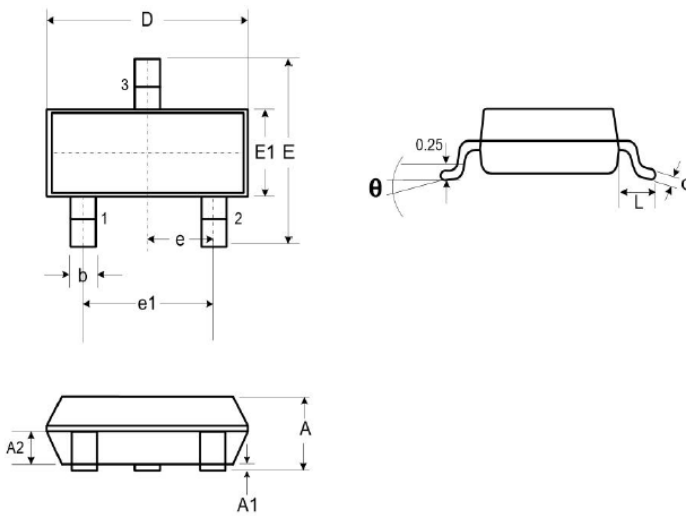


**Transition Frequency vs. Collector Current**



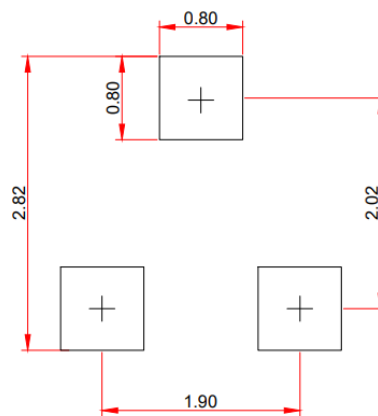
**Power derating vs. Ambient temperature**

## ➤ 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
e	1.90		
e1	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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