



## SSCN2712GS6

### NPN Switching Transistor

#### Features

VCB	VCE	VBE	IC
60V	50V	5V	150mA

#### Description

The NPN 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.

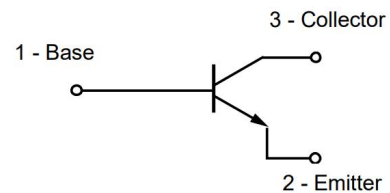
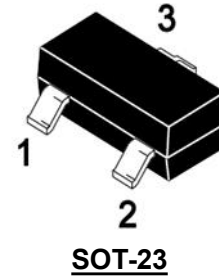
#### Applications

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

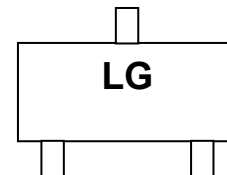
#### Ordering Information

Device	Package	Shipping
SSCN2712GS6	SOT-23	3000/Reel

#### Pin configuration



**Circuit Diagram**



**Marking (Top View)**



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

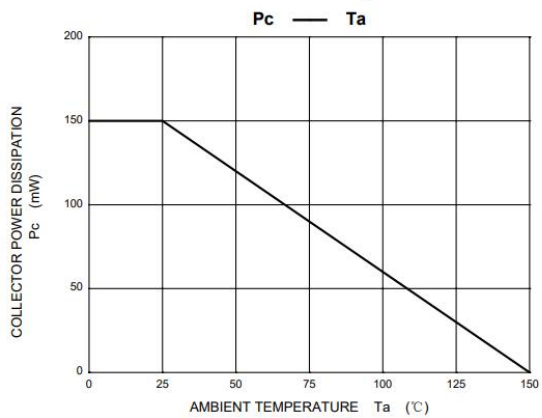
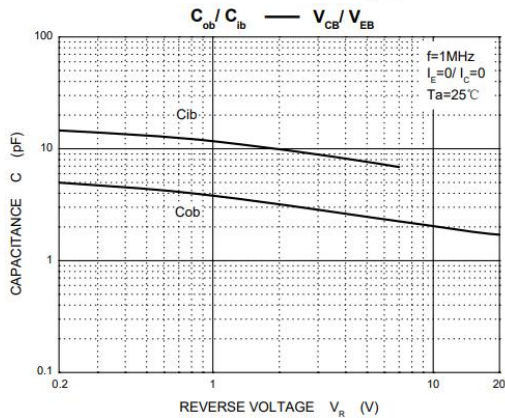
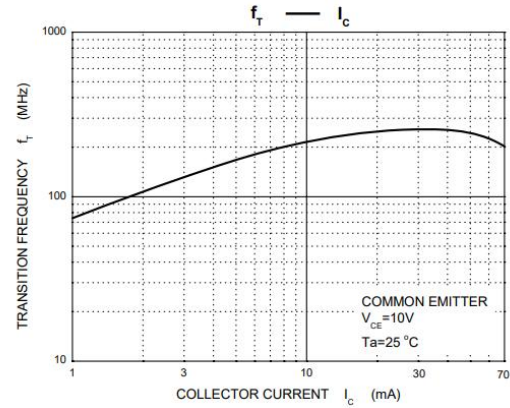
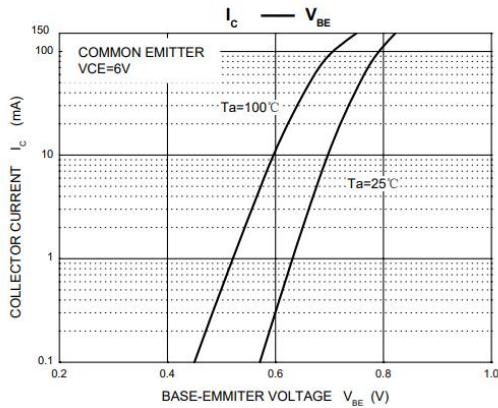
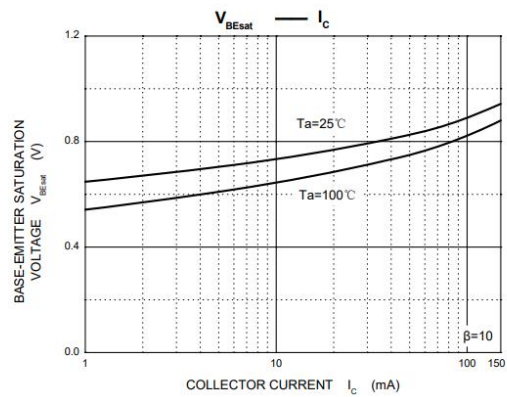
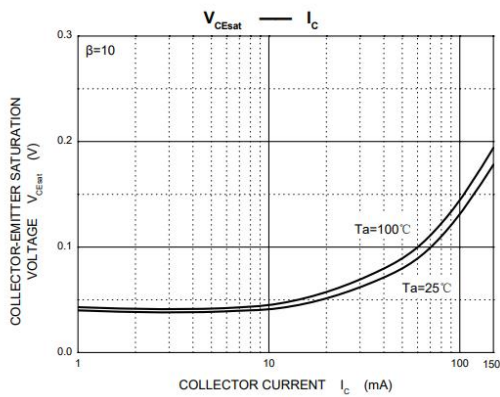
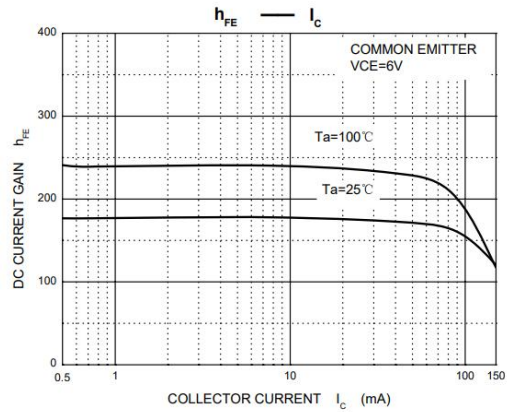
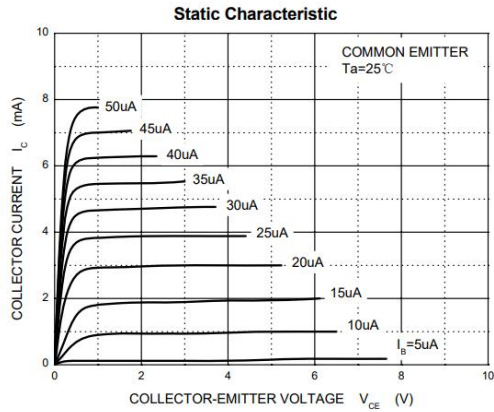
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CB0}$	60	V
Collector- Emitter Voltage	$V_{CE0}$	50	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Collector Current-Continuous	$I_C$	150	mA
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-emitter Breakdown Voltage	$BV_{CE0}$	$I_C=1\text{mA}, I_B=0$	50			V
Emitter -Base Breakdown Voltage	$BV_{EB0}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=60\text{V}, I_E=0$			100	nA
Emitter Cutoff Current	$I_{EB0}$	$V_{EB}=5\text{V}, I_C=0$			100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=6\text{V}, I_C=2\text{mA}$	200		400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.1	0.25	V
Output Capacitance	$C_{ob}$	$V_{CB}=60\text{V}, I_E=0, f=1\text{MHz}$		2.0	3.5	pF
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=1\text{mA}$	80			MHz
Noise Figure	NF	$V_{CE}=6\text{V}, I_C=0.1\text{mA}$ $f=1\text{KHz}, R_g=10\text{K}\Omega$		1.0	10	dB

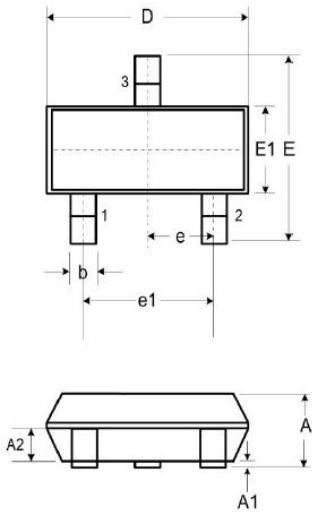


➤ Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)



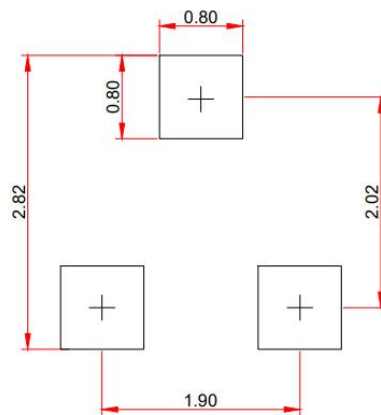


## ➤ Package Information



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		
$\theta$	0°	-	8°

## Recommended Pad outline (Unit: mm)





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