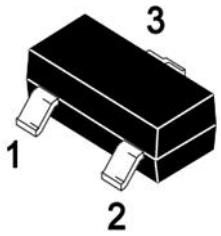
SSCN2412GS6

High Frequency High Gain NPN Power BJT

➢ Features

VCB	VCE	VEB	IC
60V	50V	7V	150mA

➢ Pin configuration



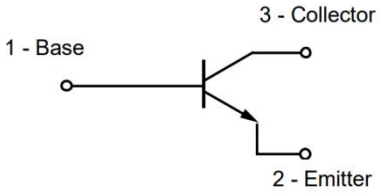
SOT-23

➢ Description

This product is general usage and suitable for many different applications. It can be used for medium power amplifiers and switches requiring collector currents up to 150 mA.

➢ Applications

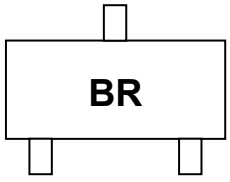
- Low current and high precision circuits such preamplifiers, oscillators, current mirror configuration
- Medium power amplification and switching



Circuit Diagram

➢ Ordering Information

Device	Package	Shipping
SSCN2412GS6	SOT-23	3000/Reel



Marking(Top View)

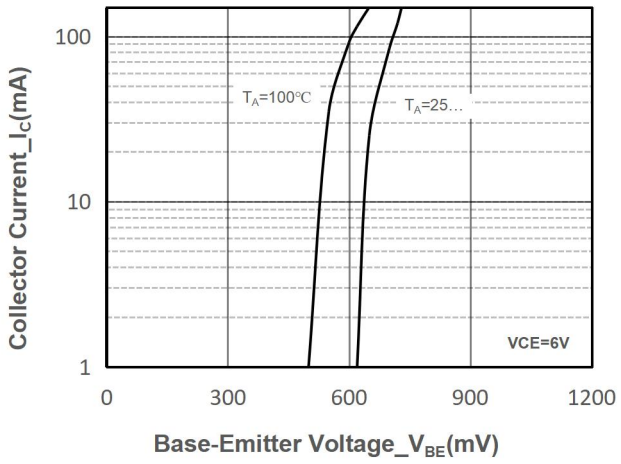
➢ Absolute Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector- Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current-Continuous	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

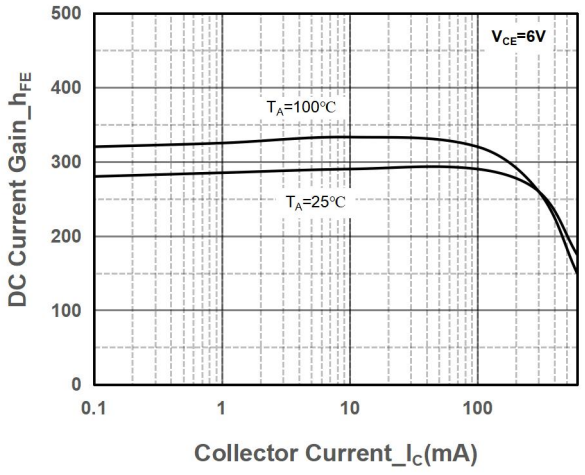
➢ Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = 50uA, I_E = 0	60			V
Collector-emitter Breakdown Voltage	BV_{CEO}	I_C = 1mA, I_B = 0	50			V
Emitter -Base Breakdown Voltage	BV_{EBO}	I_E = 50uA, I_C = 0	7			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 60V, I_E = 0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 7V, I_C = 0			0.1	μA
DC Current Gain	h_{FE}	VCE = 6V, IC = 1mA	180		390	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 50mA, I_B = 5mA			0.4	V
Transition frequency	f_T	V_{CE} = 12V, I_C = -2mA F = 100MHz		160		MHz
Collector output capacitance	c_{ob}	V_{CB} = 12V, I_E = 0, f = 1MHz		2.0	3.5	pF

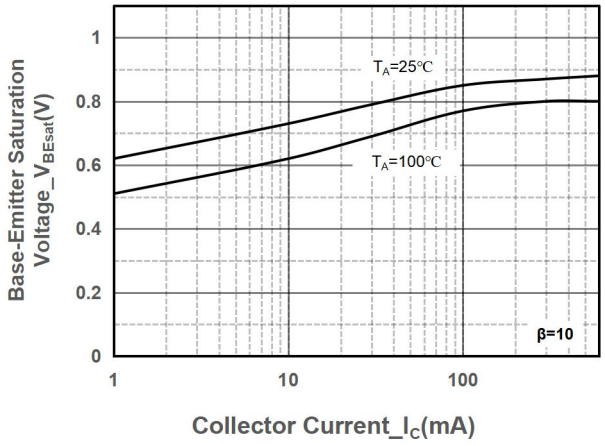
➢ Typical Performance Characteristics (T_A=25℃ unless otherwise noted)



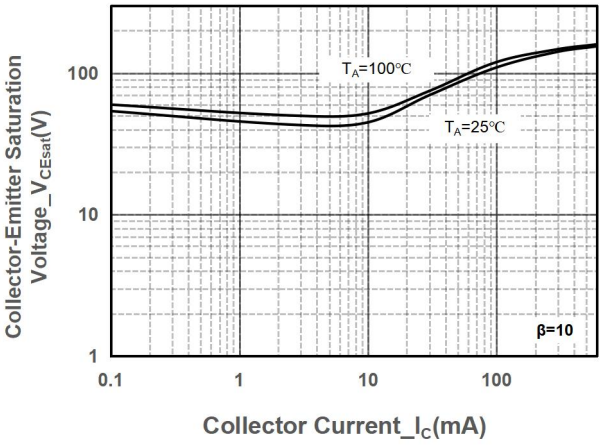
Collector Current vs. Base-Emitter Voltage



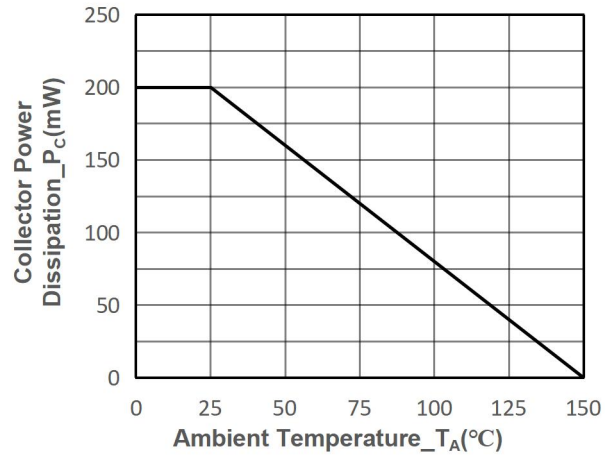
DC Current Gain vs. Collector Current



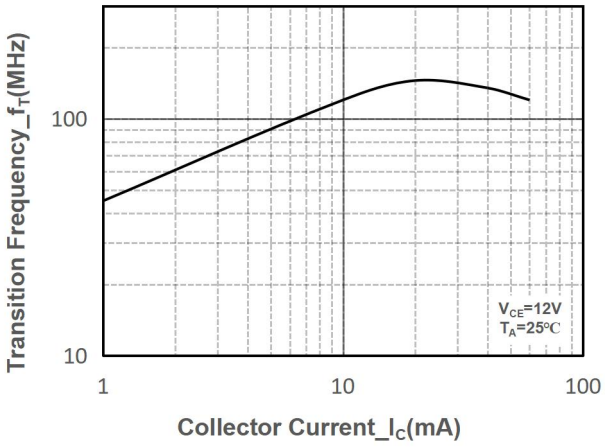
$V_{BE(sat)}$ vs. Collector Current



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

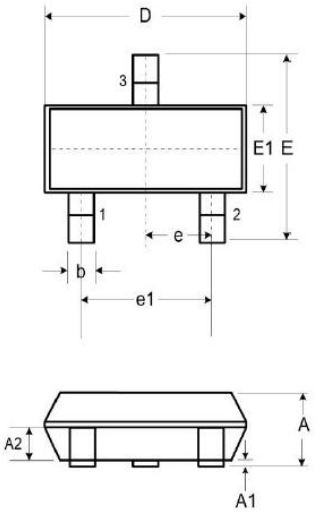


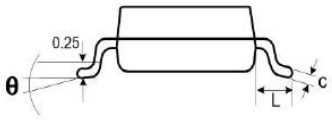
Power derating vs. Ambient temperature



Transition Frequency vs. Collector Current

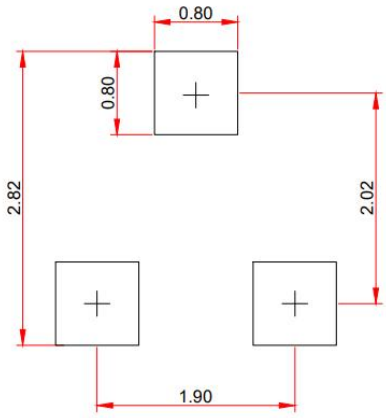
Package Information





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	1.80		2.00
L	0.40	0.50	0.60
L1	0.30		0.50
θ	0°	-	8°

Recommended Pad outline(Unit: mm)



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