



SSCNA06GS6

High Frequency High Gain NPN Power BJT

➤ Features

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

➤ Description

This device is designed for general-purpose high-voltage amplifiers and gas discharge display drivers. It is Ideal for medium power amplification and switching.

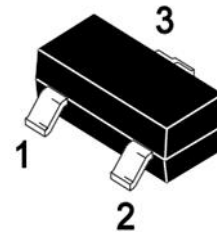
➤ Applications

- Amplifying signal
- Electronic switch
- Oscillating circuit
- Variable resistance

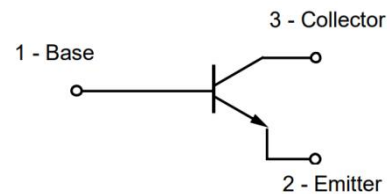
➤ Ordering Information

Device	Package	Shipping
SSCNA06GS6	SOT-23	3000/Reel

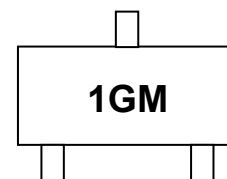
➤ Pin configuration



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_{CBO}	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	300	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	416	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$

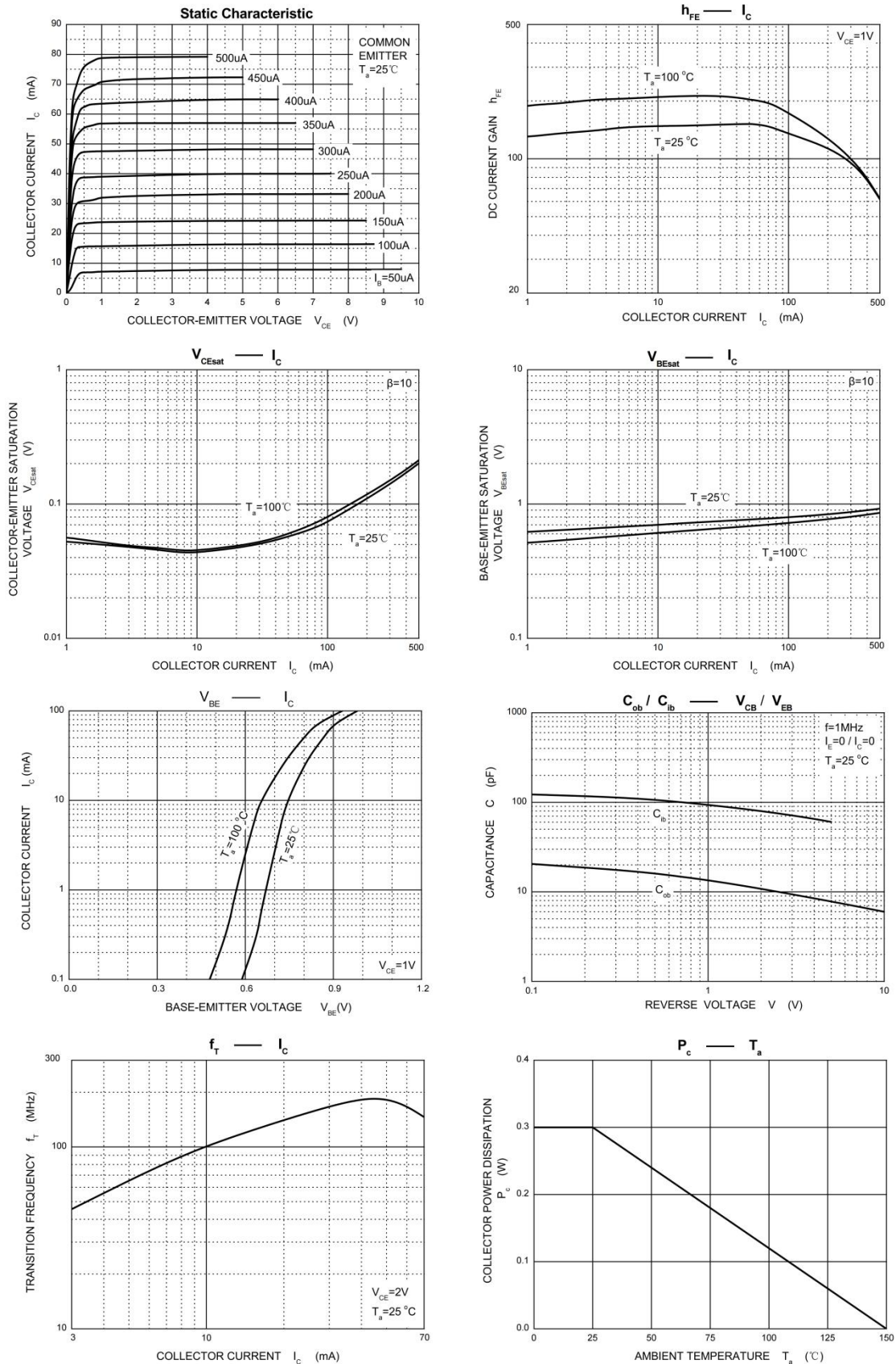
➤ **Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 0.1\text{mA}, I_E = 0$	80			V
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C = 1\text{mA}, I_B = 0$	80			V
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E = 0.1\text{mA}, I_C = 0$	4			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 80\text{V}, I_E = 0$			100	nA
Collector Cutoff Current	I_{CEO}	$V_{CE} = 60\text{V}, I_B = 0$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 3\text{V}, I_C = 0$			100	nA
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 Saturation Voltage	$V_{BE(sat)}^*$	$I_C = 100\text{mA}, I_B = 10\text{mA}$			1.20	V
Transition frequency	f_T	$V_{CE} = 2\text{V}, I_C = 10\text{mA}$ $f = 100\text{MHz}$	100			MHz

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycles $\leq 2.0\%$.



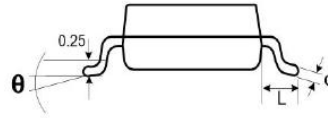
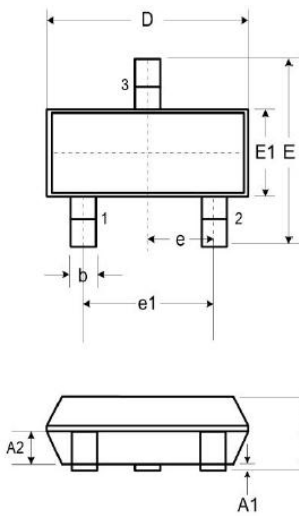
➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)





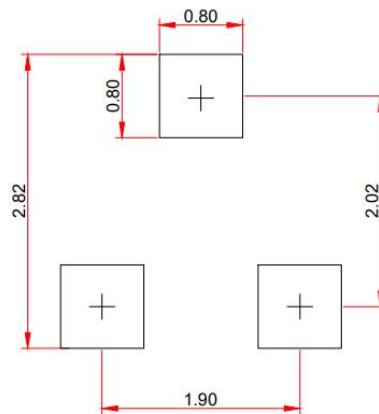
➤ Package Information

● Mechanical Data



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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