



## SSCNA43GS6

### High Frequency High Gain NPN Power BJT

#### ➤ Features

VCB	VCE	VEB	IC
200V	200V	5V	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

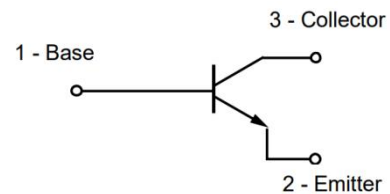
#### ➤ Ordering Information

Device	Package	Shipping
SSCNA43GS6	SOT-23	3000/Reel

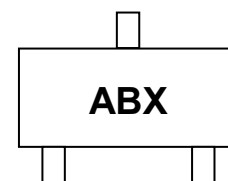
#### ➤ Pin configuration



**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	$V_{CB0}$	200	V
Collector- Emitter Voltage	$V_{CEO}$	200	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	500	mA
Collector Power Dissipation	$P_C$	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	-55 to 150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^\circ\text{C}$

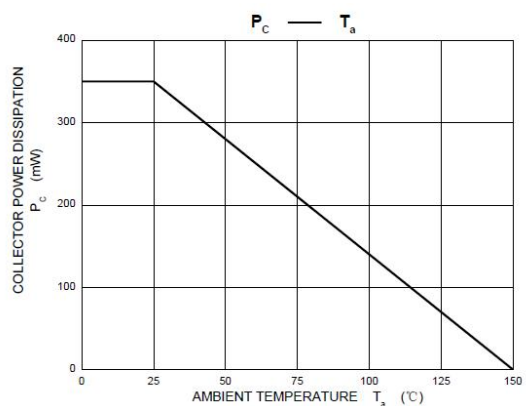
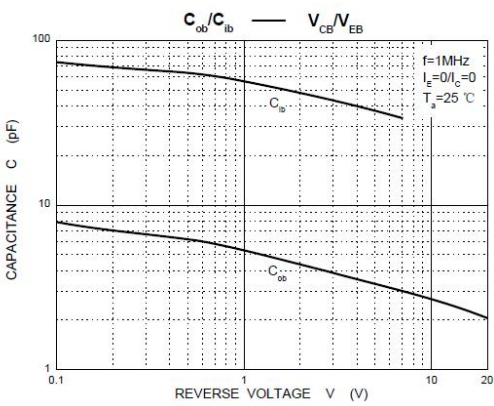
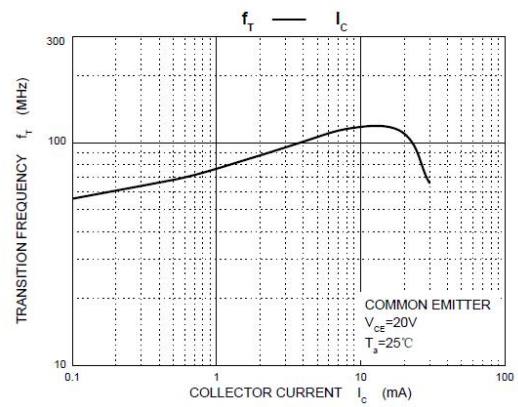
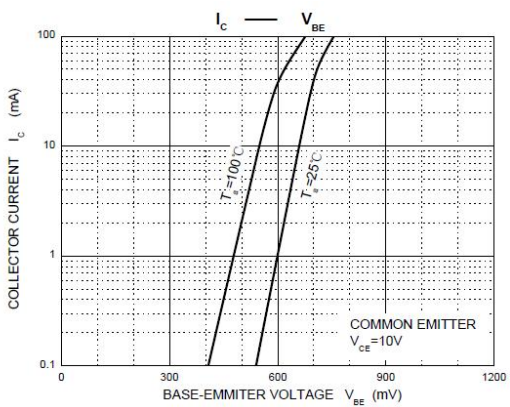
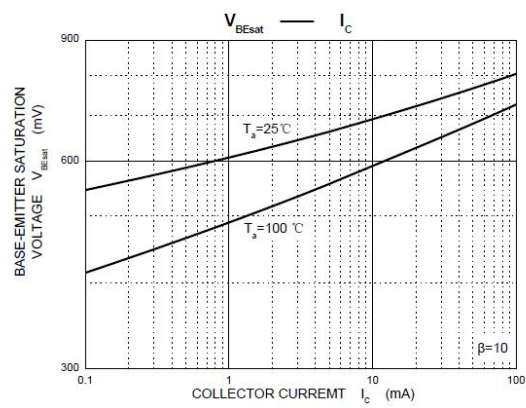
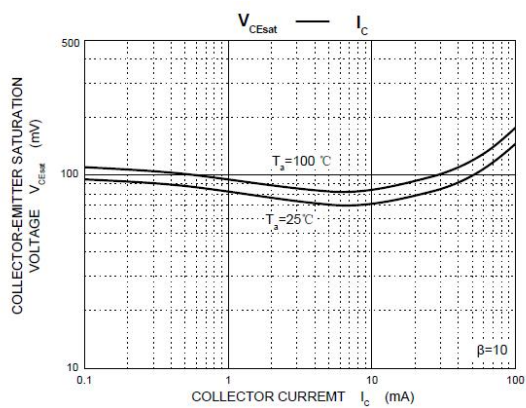
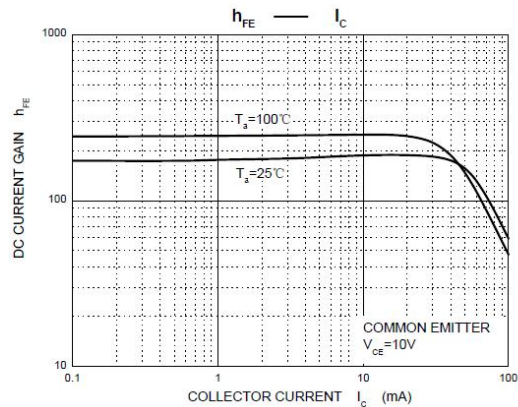
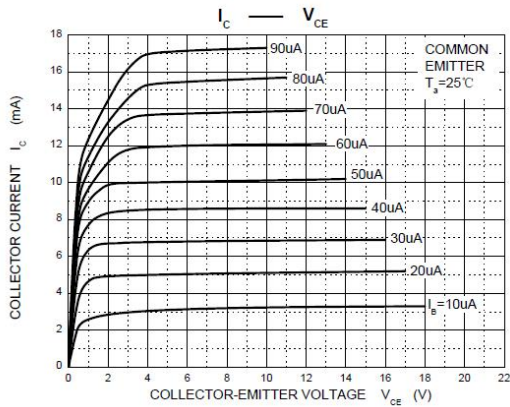
## ➤ Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C=0.1\text{mA}, I_E=0$	200			V
Collector-emitter Breakdown Voltage	$BV_{CEO}$	$I_C=1\text{mA}, I_B=0$	200			V
Emitter -Base Breakdown Voltage	$BV_{EBO}$	$I_E=0.1\text{mA}, I_C=0$	5			V
DC Current Gain	$h_{FE}^*$	$V_{CE}=10\text{V}, I_C=1\text{mA}$	40			
		$V_{CE}=10\text{V}, I_C=10\text{mA}$	40			
		$V_{CE}=10\text{V}, I_C=30\text{mA}$	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.9	V
Collector Output Capacitance	$C_{ob}$	$V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$			4	pF
Transition frequency	$f_T$	$V_{CE}=20\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	50			MHz

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



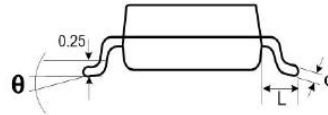
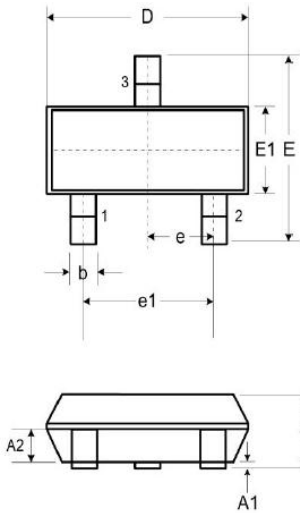
➤ Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)





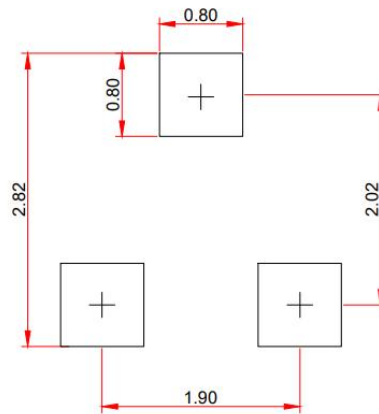
➤ Package Information

● 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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