



## SSCNX5XGS3

### NPN Plastic-Encapsulate Transistors

#### ➤ Description

This product has the characteristics of high current and high-power consumption. It is universal and suitable for many different applications. It can be used for power amplifiers and switches that require collector currents up to 1A.

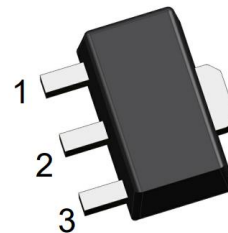
#### ➤ Features

- Driver stages of audio amplifiers
- Linear voltage regulators
- Low-side switches
- Battery-driven devices
- Power management
- MOSFET drivers

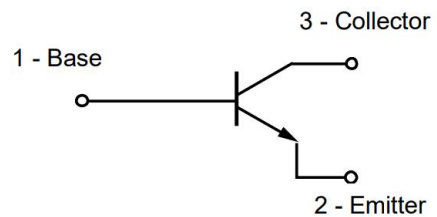
#### ➤ Ordering Information

Device	Marking	Package	Shipping
SSCNX54GS3	BA	SOT-89-3L	1000/Reel
SSCNX5410GS3	BC		
SSCNX5416GS3	BD		
SSCNX55GS3	BE		
SSCNX5510GS3	BG		
SSCNX5516GS3	BM		
SSCNX56GS3	BH		
SSCNX5610GS3	BK		
SSCNX5616GS3	BL		

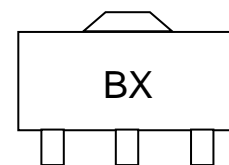
#### ➤ Pin configuration



**SOT-89-3L**



**Circuit Diagram**



**Marking (Top View)**



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

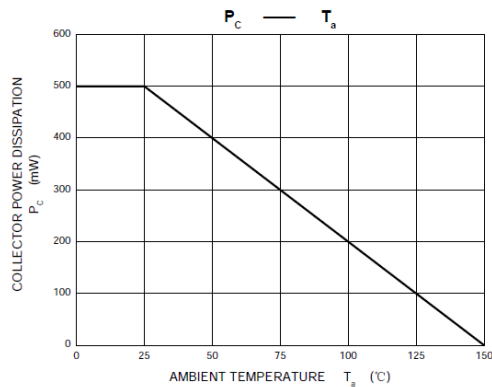
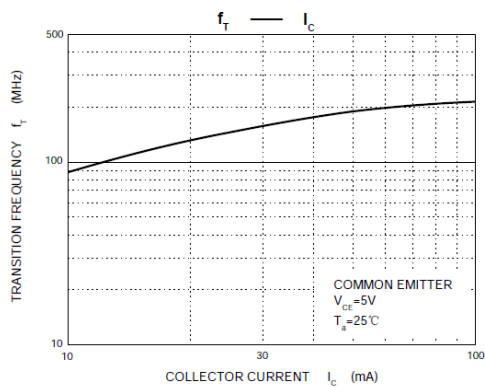
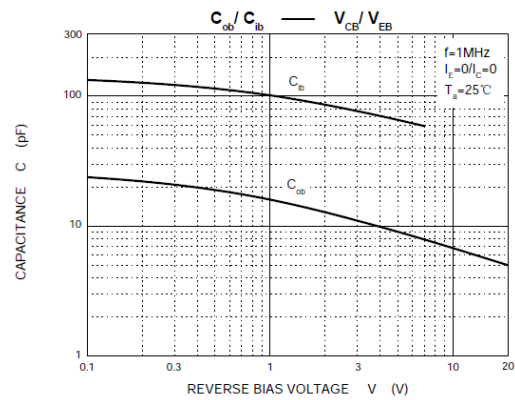
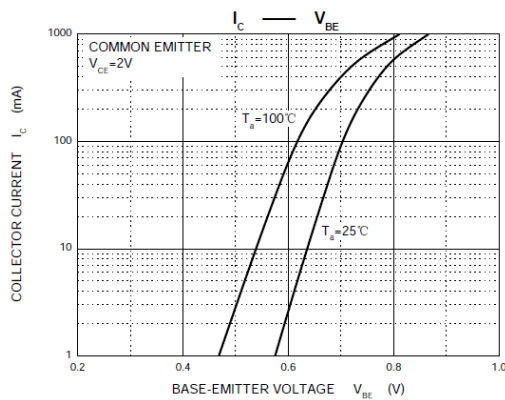
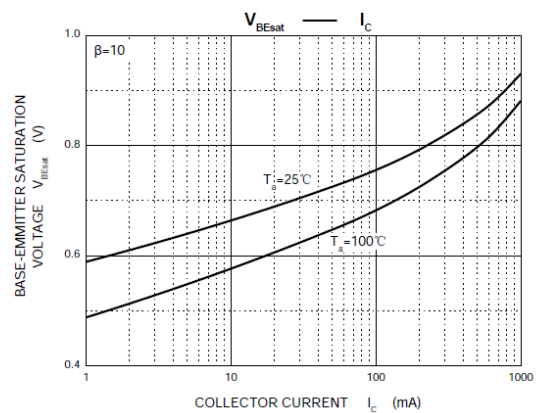
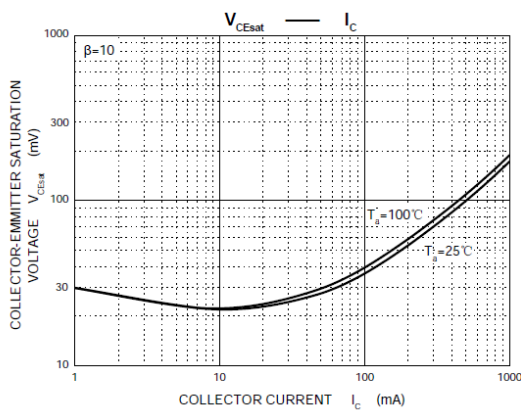
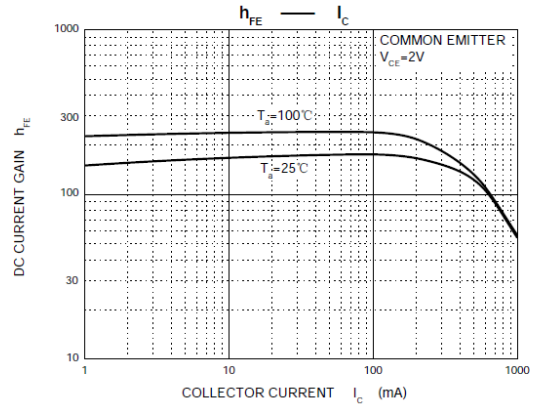
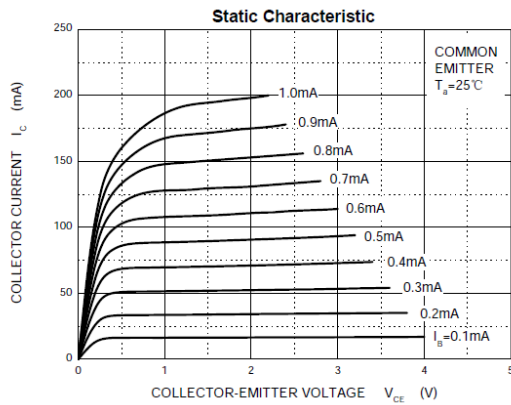
Parameter	Symbol	Value	Unit
Collector-Base Voltage	X54	45	V
	X55	60	
	X56	100	
Collector- Emitter Voltage	X54	45	V
	X55	60	
	X56	80	
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	1	A
Base Current	$I_B$	0.1	A
Collector Power Dissipation	$P_C$	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^{\circ}\text{C}/\text{W}$
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	$BV_{CBO}$	$I_C=100\mu\text{A}, I_E=0$	X54	45		V
			X55	60		
			X56	100		
Collector-emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10\text{mA}, I_B=0$	X54	45		V
			X55	60		
			X56	80		
Emitter -Base Breakdown Voltage	$BV_{EBO}$	$I_E=10\mu\text{A}, I_C=0$	5			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			100	nA
DC Current Gain	$h_{FE1}$	$V_{CE}=2\text{V}, I_C=5\text{mA}$	40			
DC Current Gain	$h_{FE2}$	$V_{CE}=2\text{V}, I_C=150\text{mA}$	X54, X55, X56	63	250	
			X5410, X5510, X5610	63	160	
			X5416, X5516, X5616	100	250	
DC Current Gain	$h_{FE3}$	$V_{CE}=2\text{V}, I_C=0.5\text{A}$	25			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.5\text{A}, I_B=50\text{mA}$			0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=2\text{V}, I_C=0.5\text{A}$			1	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$		130		MHz

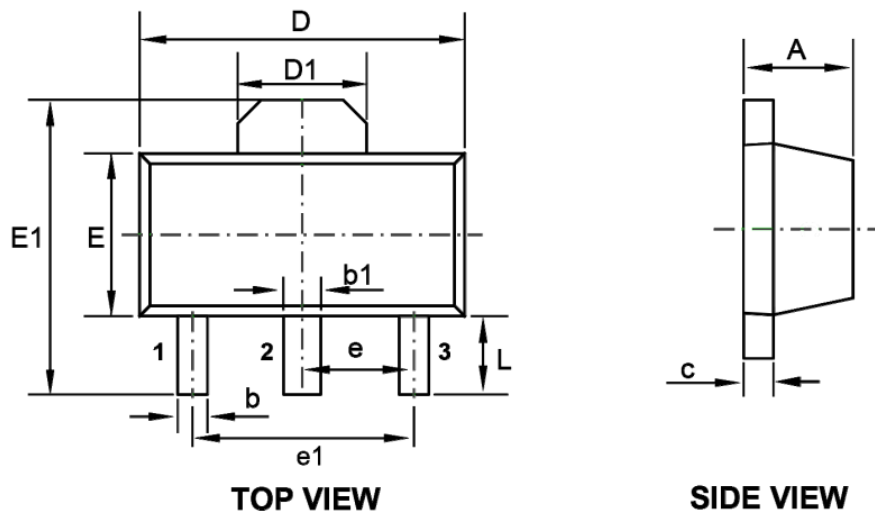


➤ Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)



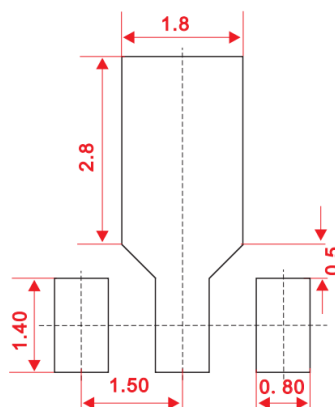
➤ Package Information

● Mechanical Data



DIM	Millimeters		
	Min.	Typ.	Max.
A	1.40	-	1.60
b	0.32	-	0.52
b1	0.40	-	0.58
c	0.35	-	0.44
D	4.40	-	4.60
D1	1.55 REF.		
E	2.30	-	2.60
E1	3.94	-	4.25
e		1.50	
e1		3.00	
L	0.90	-	1.20

● Recommended Pad outline (Unit: mm)





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