



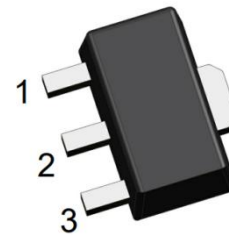
## SSCN1766QGS3

### 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 2A.

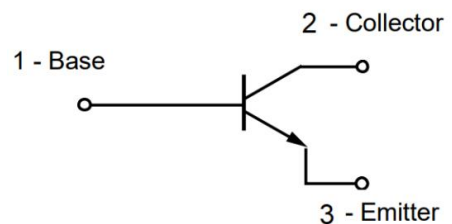
#### ➤ Pin configuration



**SOT-89-3L**

#### ➤ Features

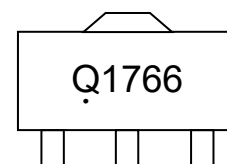
- Driver stages of audio amplifiers
- Linear voltage regulators
- Low-side switches
- Battery-driven devices
- Power management
- MOSFET drivers



**Circuit Diagram**

#### ➤ Ordering Information

Device	Package	Shipping
SSCN1766QGS3	SOT-89	3000/Reel



**Marking (Top View)**



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

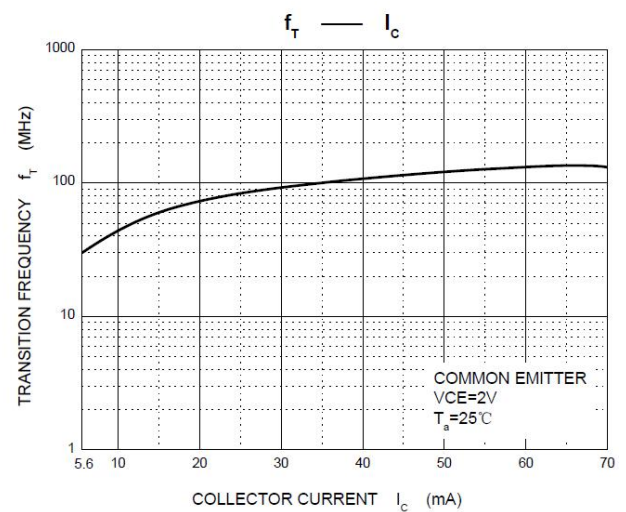
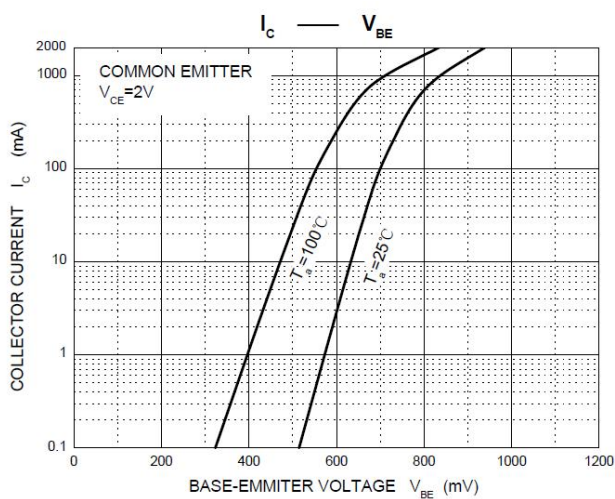
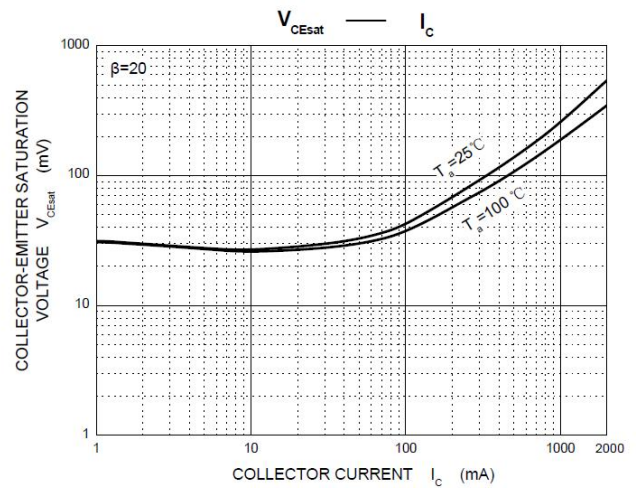
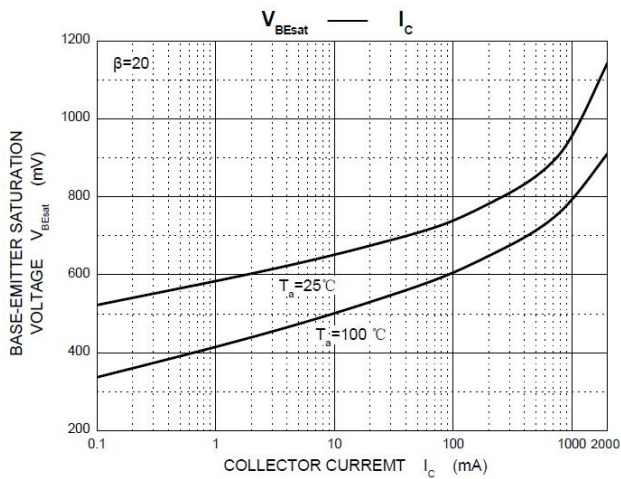
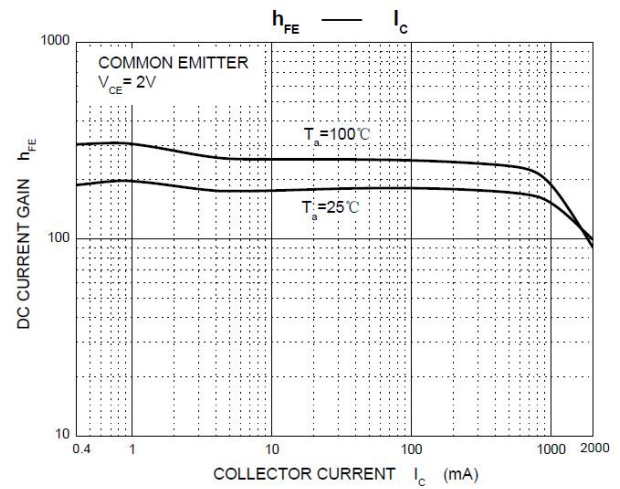
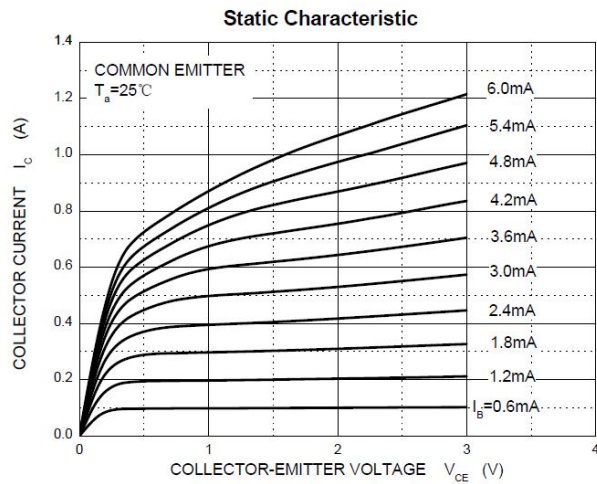
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	50	V
Collector- Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	2	A
Collector Power Dissipation	$P_C$	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^{\circ}\text{C}/\text{W}$
Junction Temperature	$T_J$	-55 to 150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^{\circ}\text{C}$

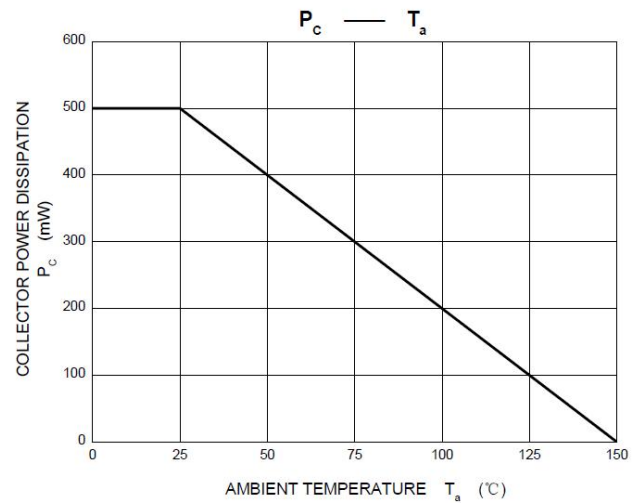
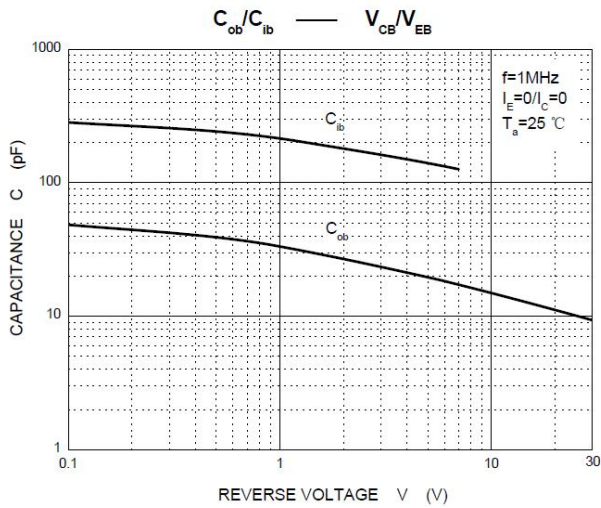
➤ **Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = 100\mu\text{A}$ , $I_E = 0$	50			V
Collector-emitter Breakdown Voltage	$BV_{CEO}$	$I_C = 1\text{mA}$ , $I_B = 0$	50			V
Emitter -Base Breakdown Voltage	$BV_{EBO}$	$I_E = 100\mu\text{A}$ , $I_C = 0$	5			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 50\text{V}$ , $I_E = 0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$			100	nA
DC Current Gain	$h_{FE1}$	$V_{CE} = 2\text{V}$ , $I_C = 0.5\text{A}$	120		270	
DC Current Gain	$h_{FE2}$	$V_{CE} = 2\text{V}$ , $I_C = 2\text{A}$	20			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}$ , $I_B = 50\text{mA}$			0.5	V
Base-Emitter Voltage	$V_{BE(sat)}$	$I_C = 1\text{A}$ , $I_B = 50\text{mA}$			1.2	V
Transition frequency	$f_T$	$V_{CE} = 2\text{V}$ , $I_C = 0.5\text{A}$ $f = 100\text{MHz}$		120		MHz

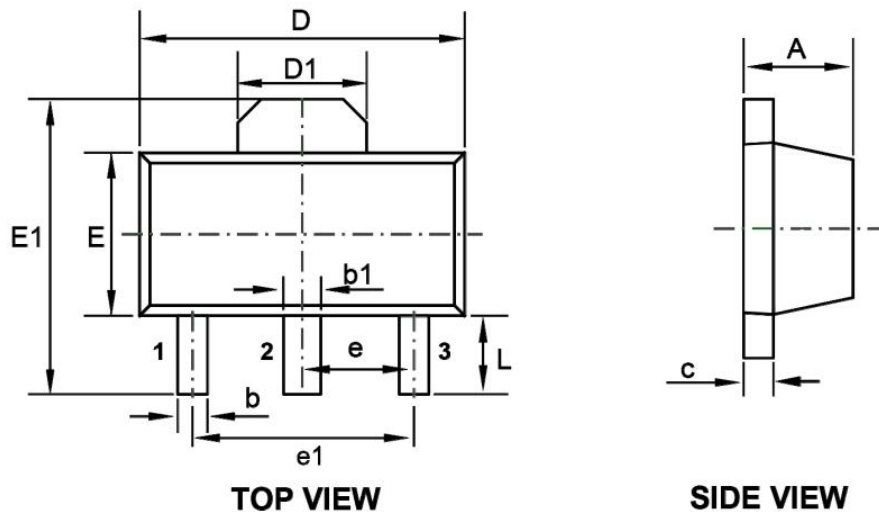


## ➤ Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)



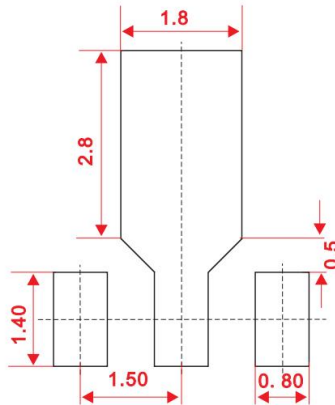


## ➤ Package Information



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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