



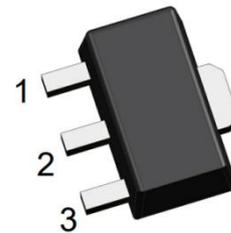
SSCN1766QGS3

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.

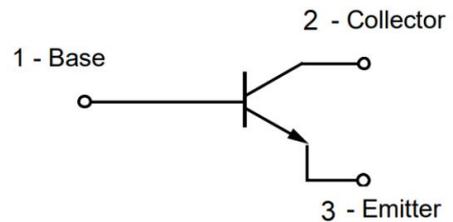
➤ Pin configuration



SOT-89-3L

➤ Features

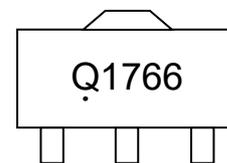
- Driver stages of audio amplifiers
- Linear voltage regulators
- Low-side switches
- Battery-driven devices
- Power management
- MOSFET drivers



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)**

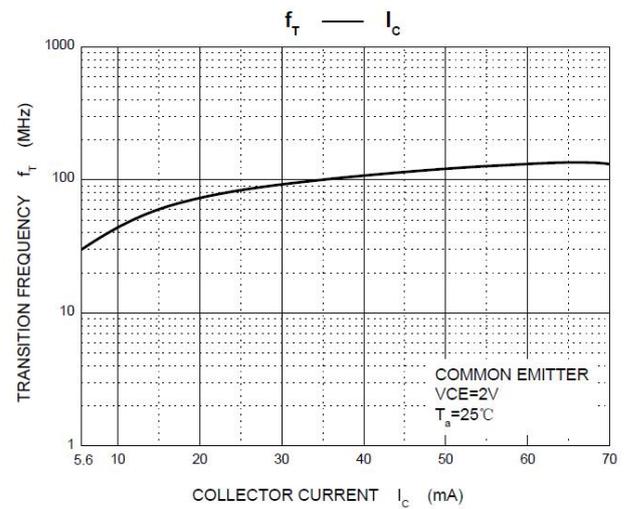
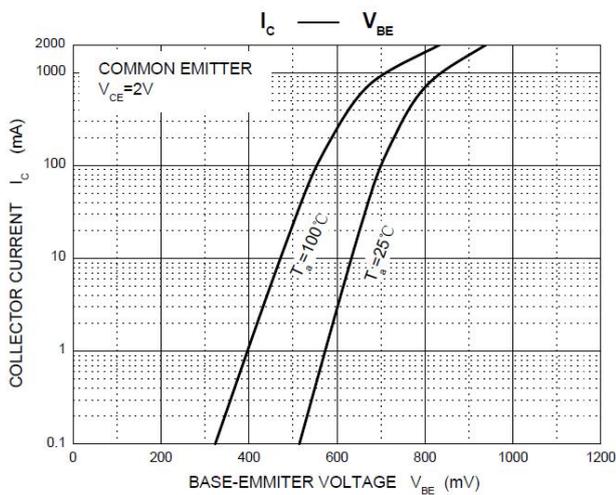
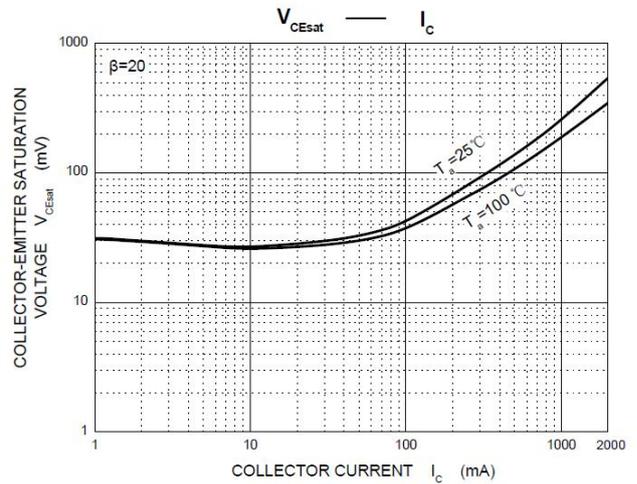
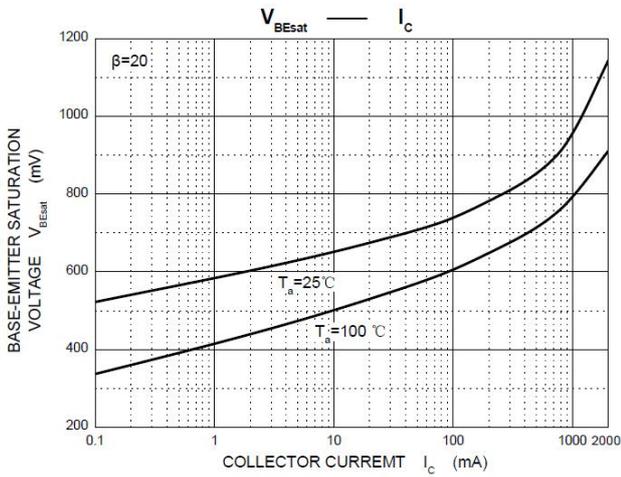
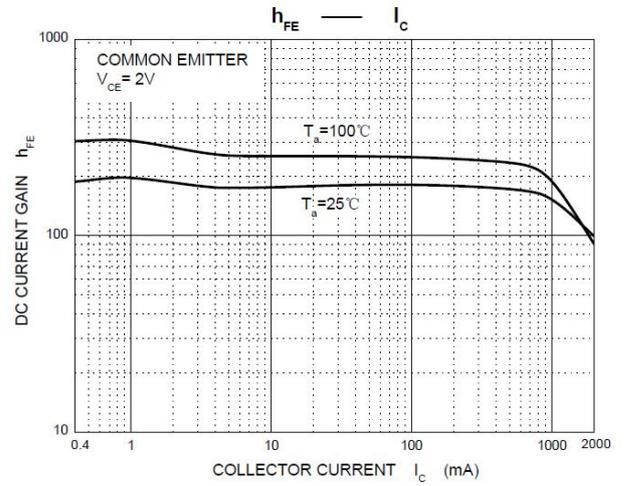
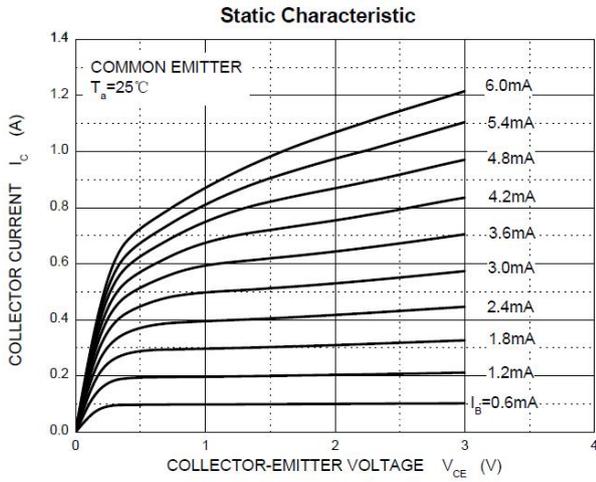
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	50	V
Collector- Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	2	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	-55 to 150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^\circ\text{C}$

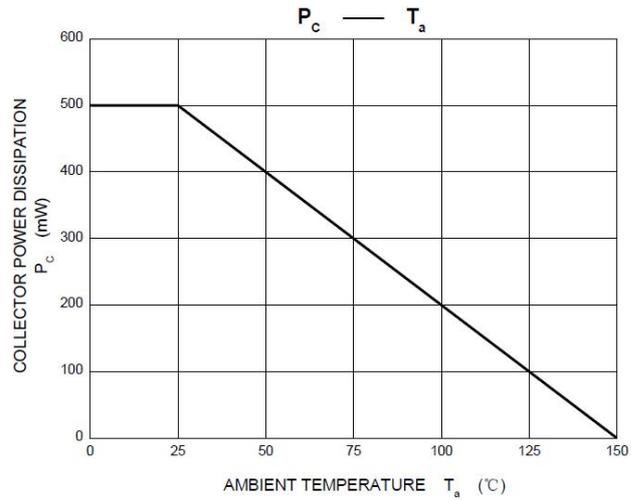
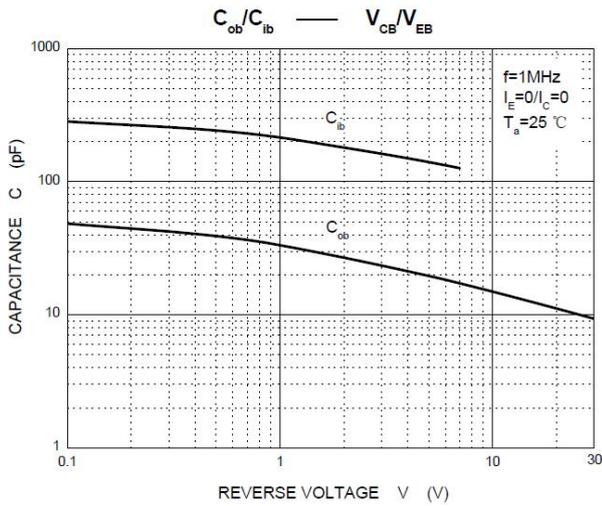
➤ **Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=100\mu\text{A}, I_E=0$	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_{CB0}	$V_{CB}=50\text{V}, I_E=0$			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

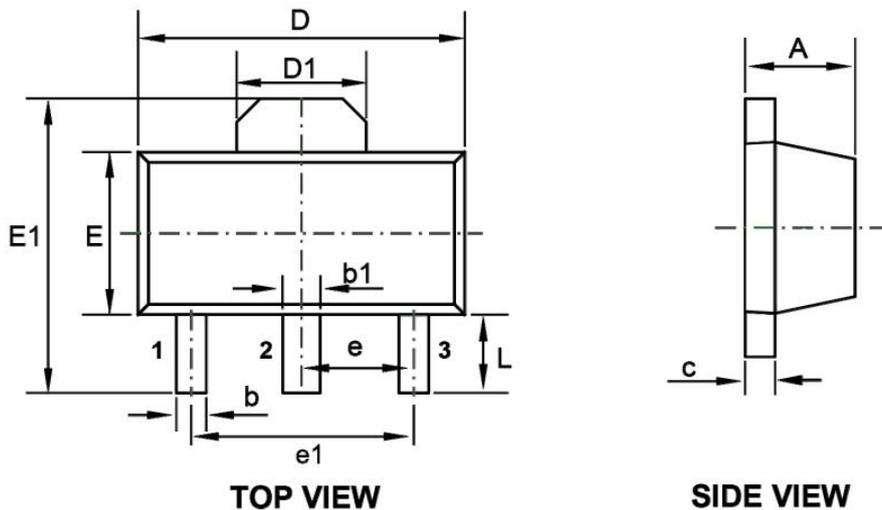


Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)





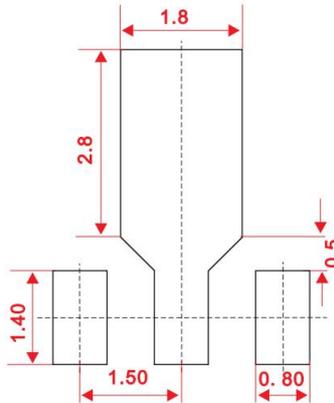
➤ Package Information



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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