SSCN8050GS3

NPN Switching Transistor

➢ Features

VCB	VCE	VEB	IC
40V	25V	5V	1.5A

➢ Description

The NPN Transistor is designed for use in linear and switching applications. The device is housed in the SOT89-3 package, which is designed for telephony and professional communication equipment.

➢ Applications

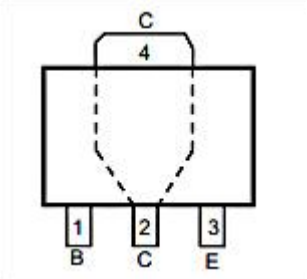
- General purpose switching and amplification
- Telephony and professional communication equipment

➢ Ordering Information

Device	Package	Shipping
SSCN8050GS3	SOT89-3L	3000/Reel

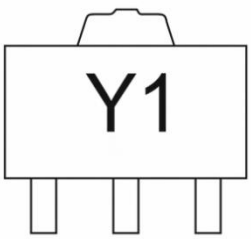
➢ Pin configuration

Top view



SOT89-3L

Bottom view



Marking(Top View)

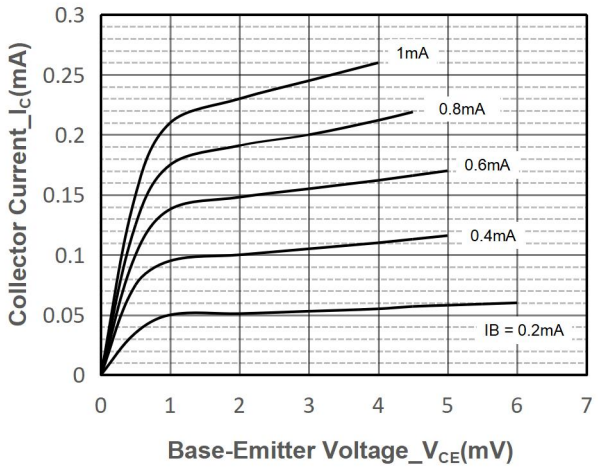
➢ Absolute Maximum Ratings(T_A = 25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector- Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	1.5	A
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

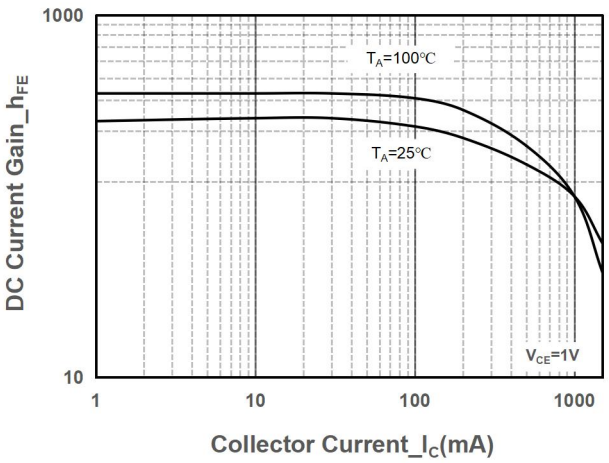
➢ Electrical Characteristics (T_A = 25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = 100uA, I_E = 0	40			V
Collector-emitter Breakdown Voltage	BV_{CEO}	I_C = 1mA, I_B = 0	25			V
Emitter -Base Breakdown Voltage	BV_{EBO}	I_E = 100uA, I_C = 0	5			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 35V, I_E = 0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V, I_C = 0			0.1	μA
DC Current Gain	h_{FE1}	V_{CE} = 1V, I_C = 100mA	85		400	
	h_{FE2}	V_{CE} = 1V, I_C = 800mA	40			
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C = 800mA,I_B = 80mA			0.5	V
Base-Emitter Saturation Base-Emitter	$V_{BE\ (sat)}$	I_C = 800mA, I_B = 80mA			1.2	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 1V,I_C =10mA			1	V
Transition frequency	f_T	V_{CE} = 10V, I_C = 50mA f = 30MHz	100			MHz
Collector output capacitance	c_{ob}	V_{CB} = 10V,I_E = 0, f = 1MHz			15	pF

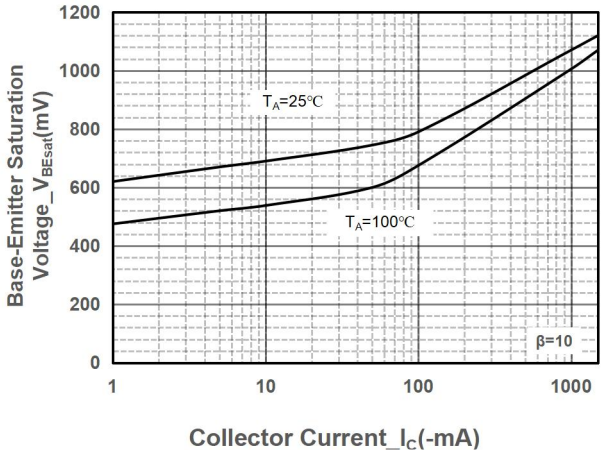
➢ Typical Performance Characteristics (T_A = 25℃ unless otherwise noted)



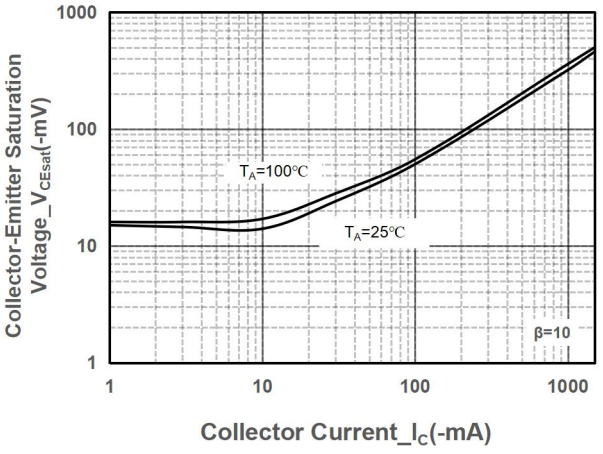
Collector Current vs. Base-Emitter Voltage



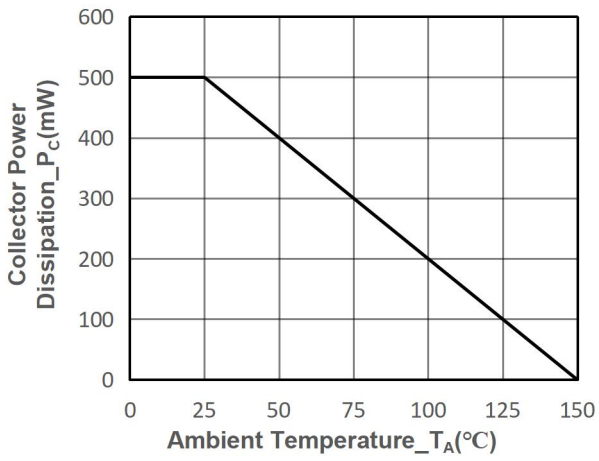
DC Current Gain vs. Collector Current



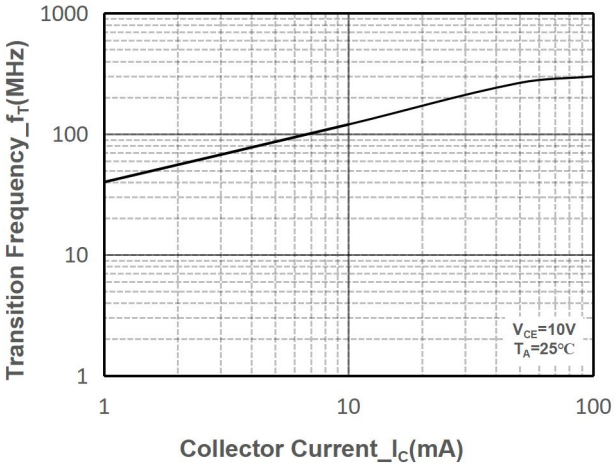
$V_{BE\ (sat)}$ vs. Collector Current



$V_{CE\ (sat)}$ vs. Collector Current

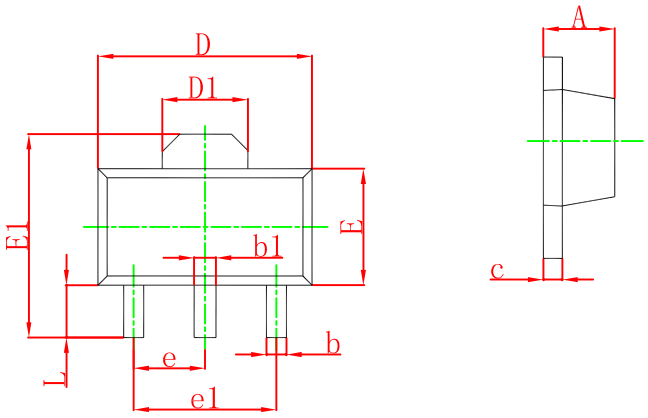


Power derating vs. Ambient temperature



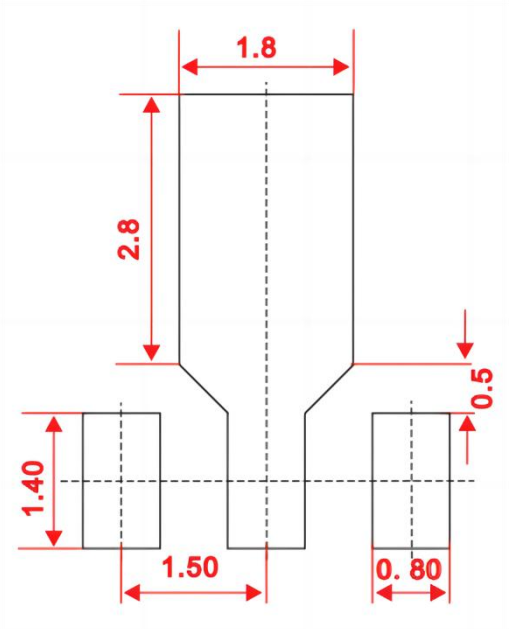
Transition Frequency vs. Collector Current

SOT89-3L



DIM	Millimeters		
	Min.	Typ.	Max.
A	1.400		1.600
b	0.320		0.520
b1	0.400		0.580
c	0.350		0.440
D	4.400		4.600
D1		1.550	
E	2.300		2.600
E1	3.940		4.250
e		1.500	
e1		3.000	
L	0.900		1.200

Recommended Pad outline (Unit: mm)



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