

NPN Switching Transistor

> Features

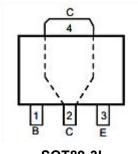
VCB	VCE	VEB	IC
40V	25V	5V	1.5A

> Description

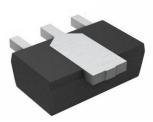
The NPN Transistor is designed for use in linear and switching applications. The device is housed in the SOT89-3 package, which is designed for telephony and professional communication equipment.

> Pin configuration

Top view







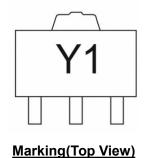
Bottom view

> Applications

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

> Ordering Information

Device	Package	Shipping
SSCN8050GS3	SOT89-3L	3000/Reel





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

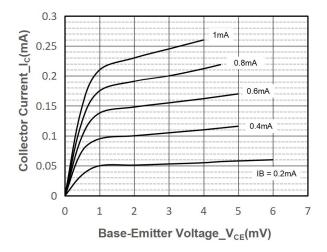
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	40	V
Collector- Emitter Voltage	VCEO	25	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current-Continuous	lc	1.5	А
Collector Power Dissipation	Pc	250	mW
Junction Temperature	TJ	-55 to 150	°C
Storage Temperature	T _{STG}	-55 to 150	°C

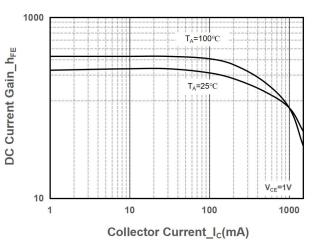
> Electrical Characteristics ($T_A = 25^{\circ}C$ unless otherwise noted)

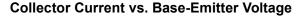
Parameter	Symbol	Test Conditions	Min.	Тур.	Max.	Unit
Collector-Base Breakdown Voltage	BV _{CBO}	$I_{\rm C} = 100 {\rm uA}, I_{\rm E} = 0$	40			~
Collector-emitter Breakdown Voltage	BV _{CEO}	$I_{C} = 0.1 \text{mA}, I_{B} = 0$	25			
Emitter -Base Breakdown Voltage	BV _{EBO}	I _E = 100uA, I _C = 0	5			
Collector Cutoff Current	I _{СВО}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Emitter Cutoff Current	I _{CEO}	$V_{CE} = 20V, I_E = 0$			0.1	μA
Emitter Cutoff Current	Іево	V _{EB} = 5V, I _C = 0			0.1	μA
	h _{FE1}	V _{CE} = 1V, I _C = 100mA	85		400	
DC Current Gain	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	VBE	V _{CE} = 1V,I _C =10mA			1	V
Transition frequency	fT	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

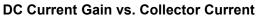


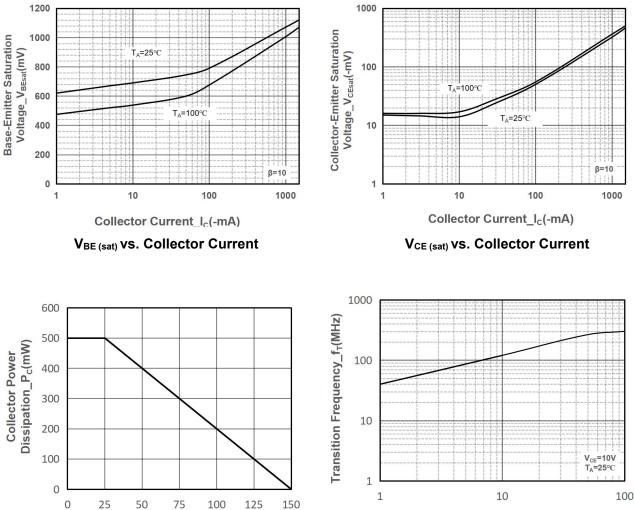
> Typical Performance Characteristics (T_A = 25 $^{\circ}$ C unless otherwise noted)











Collector Current_l_c(mA)

Power derating vs. Ambient temperature

Ambient Temperature_T_A(°C)

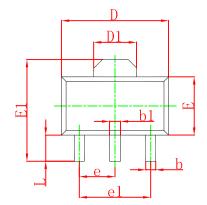
Transition Frequency vs. Collector Current

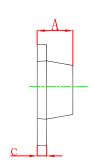
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Package Information

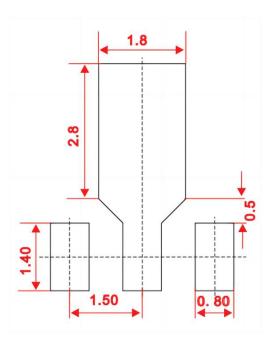
<u>SOT89-3L</u>





DIM	Millimeters			
	Min.	Тур.	Max.	
Α	1.400		1.600	
b	0.320		0.520	
b1	0.400		0.580	
с	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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