



SSCN847BGS6

NPN Switching Transistor

➤ Features

VCB	VCE	VEB	VCESAT	IC
50V	45V	6V	500mV	100mA

➤ Description

The NPN Transistor is designed for use in linear and switching applications. The device is housed in the SOT-23 package, which is designed for telephony and professional communication equipment.

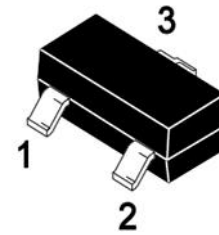
➤ Applications

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

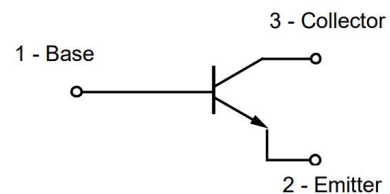
➤ Ordering Information

Device	Package	Shipping
SSCN847BGS6	SOT-23	3000/Reel

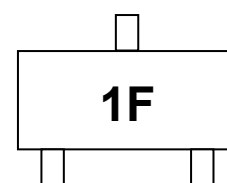
➤ Pin configuration



SOT-23



Circuit Diagram



Marking (Top View)



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

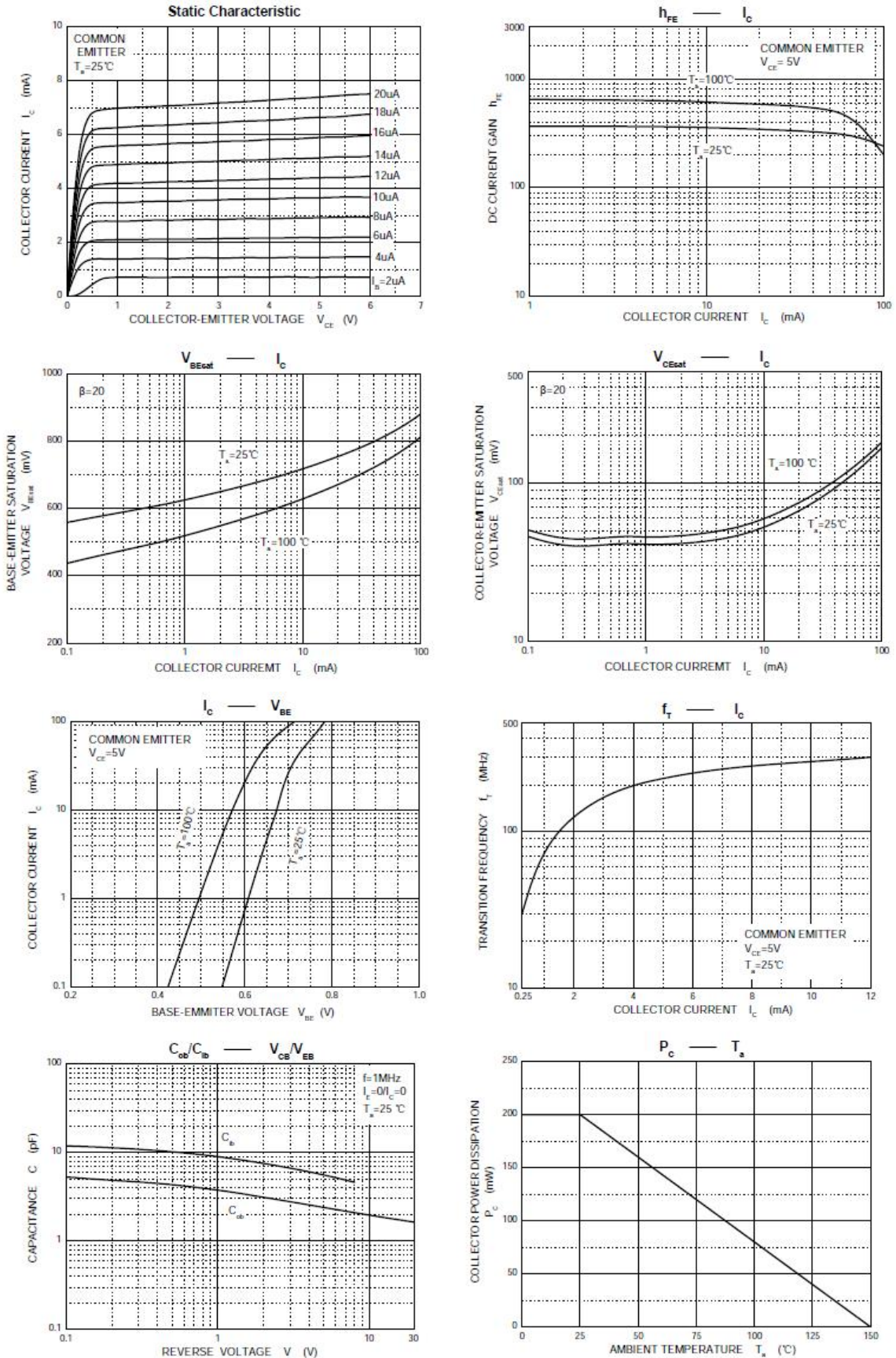
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	50	V
Collector- Emitter Voltage	V_{CE0}	45	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	100	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=10\mu\text{A}$, $I_E=0$	50			V
Collector-emitter Breakdown Voltage	BV_{CE0}	$I_C=10\text{mA}$, $I_B=0$	45			V
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu\text{A}$, $I_C=0$	6			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_{FE}	$V_{CE}=5\text{V}$, $I_C=2\text{mA}$	200		450	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=5\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$, $I_B=5\text{mA}$			1.1	V
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $f=1\text{MHz}$			4.5	pF

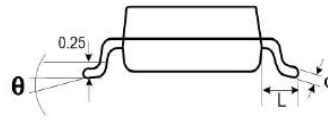
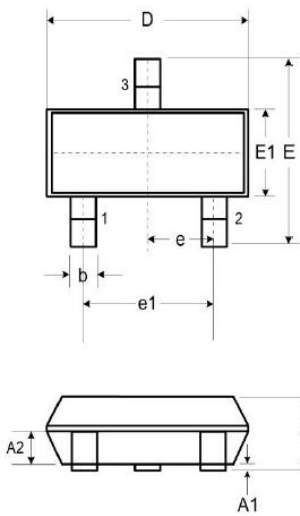


➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)



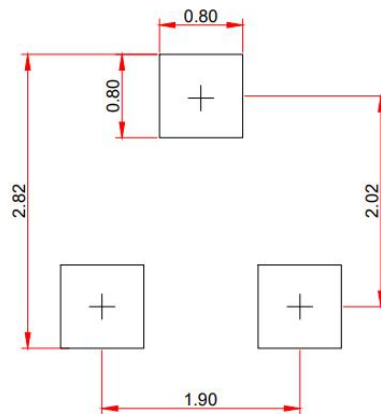


● Package Information



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e1	1.90		
e	0.95		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline (Unit: mm)





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