



SSCN84XGS7

NPN Switching Transistor

➤ Description

This product is general usage and suitable for many different applications. It can be used for medium power amplifiers and switches requiring collector currents up to 100 mA.

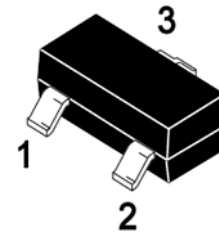
➤ Features

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

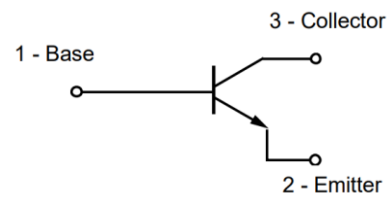
➤ Ordering Information

Device	Marking	Package	Shipping
SSCN846AGS7	1A	SOT-323	3000/Reel
SSCN846BGS7	1B		
SSCN847AGS7	1E		
SSCN847BGS7	1F		
SSCN847CGS7	1G		
SSCN848AGS7	1J		
SSCN848BGS7	1K		
SSCN848CGS7	1L		

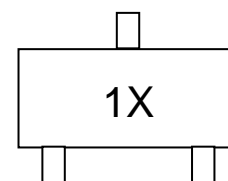
➤ Pin configuration



SOT-323



Circuit Diagram



Marking (Top View)



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

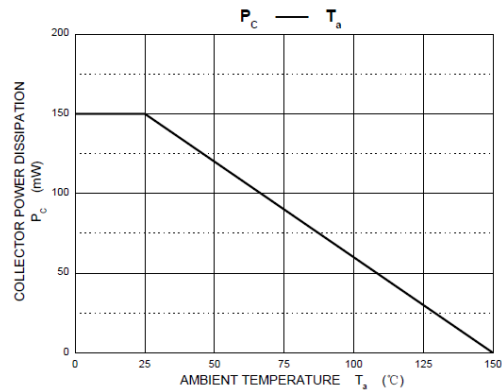
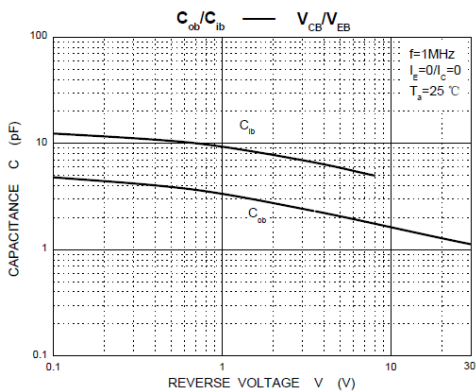
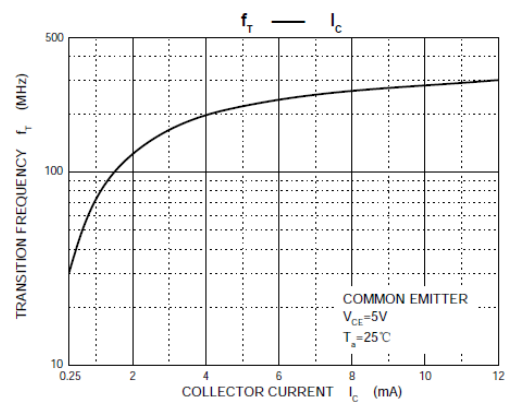
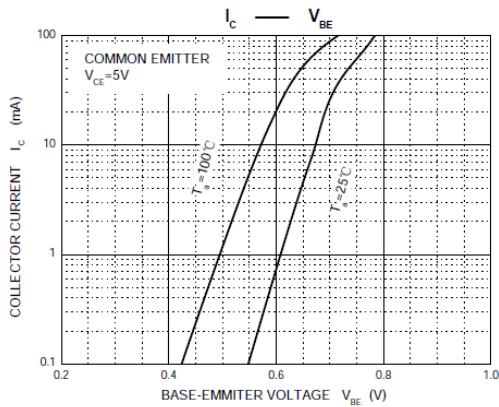
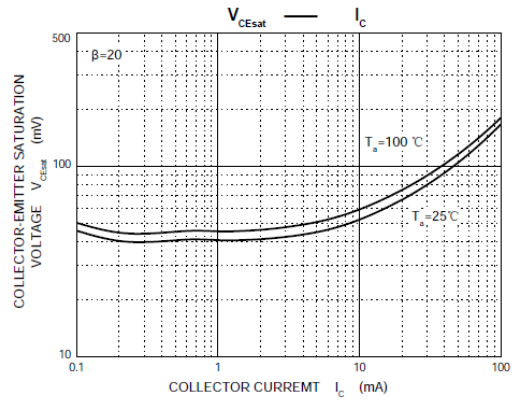
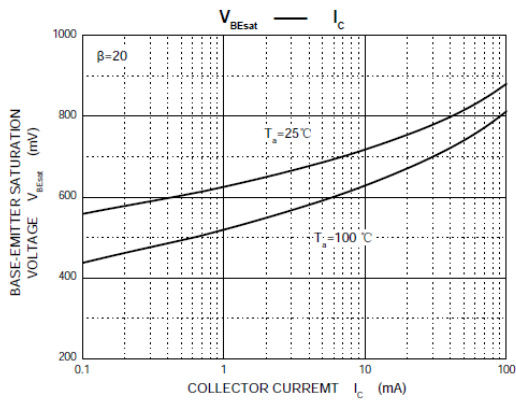
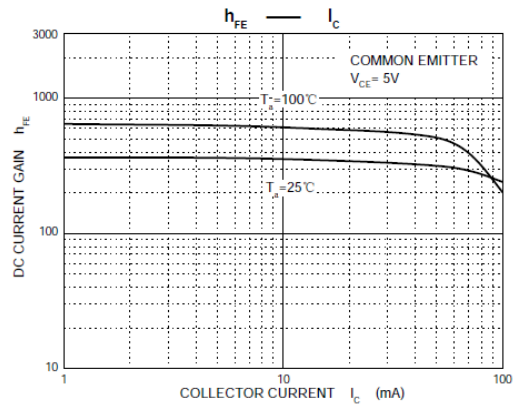
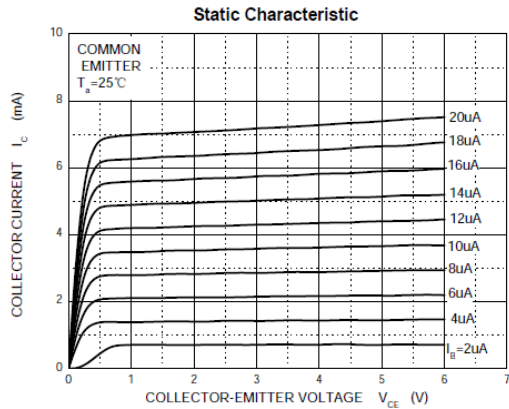
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	846	80
		847	50
		848	30
Collector- Emitter Voltage	V_{CEO}	846	65
		847	45
		848	30
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	100	mA
Collector Power Dissipation	P_C	150	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	833	$^\circ\text{C}/\text{W}$
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_{CBO}	$I_C=10\mu\text{A}, I_E=0$	846	80		V
			847	50		
			848	30		
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C=10\text{mA}, I_B=0$	846	65		V
			847	45		
			848	30		
Emitter -Base Breakdown Voltage	BV_{EBO}	$I_E=1\mu\text{A}, I_C=0$	6			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=70\text{V}, I_E=0$ $V_{CB}=50\text{V}, I_E=0$ $V_{CB}=30\text{V}, I_E=0$	846		0.1	μA
			847			
			848			
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=2\text{mA}$	846A, 847A, 848A	110	220	
			846B, 847B, 848B	200	450	
			847C, 848C	420	800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$			0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$		0.9		V
Collector Capacitance	C_{ob}	$V_{CB}=10\text{V}, f=1\text{MHz}$			4.5	pF
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	100			MHz



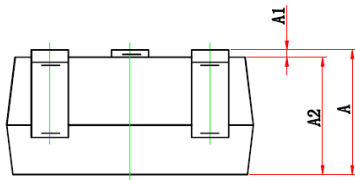
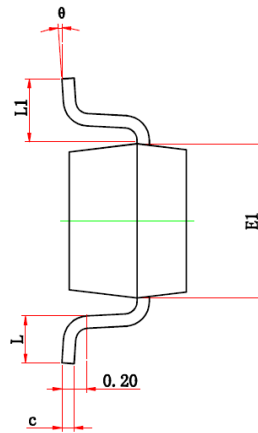
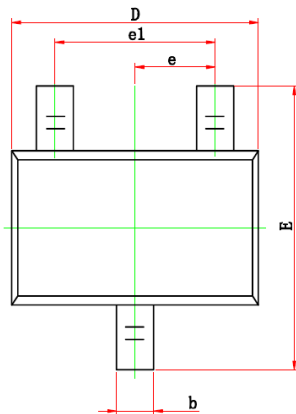
➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)





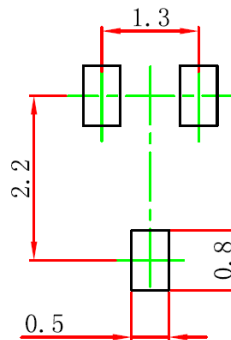
➤ Package Information

● Mechanical Data



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.90	-	1.10
A1	0.00	-	0.10
A2	0.90	-	1.00
b	0.20	-	0.40
c	0.08	-	0.15
D	2.00	-	2.20
E	2.15	-	2.45
E1	1.15	-	1.35
e		0.65	
e1	1.20	-	1.40
L	0.26	-	0.46
L1	0.525 REF.		
θ	0°	-	8°

● Recommended Pad outline (Unit: mm)





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