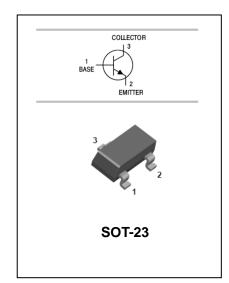
# **BL** Galaxy Electrical

# Silicon Epitaxial Planar Transistor

## **SS8050**

#### **FEATURES**

- Collector Current.(I<sub>C</sub>= 1.5A)
- Complementary To SS8550.
- Collector dissipation:P<sub>C</sub>=300mW(T<sub>C</sub>=25°C)



#### **APPLICATIONS**

High Collector Current.

#### ORDERING INFORMATION

Type No.	Marking	Package Code	
SS8050	Y1	SOT-23	-

#### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	25	V
$V_{EBO}$	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current -Continuous	1.5	Α
P <sub>C</sub>	Collector Dissipation	300	mW
$T_{j},T_{stg}$	Junction and Storage Temperature	-55~150	${\mathbb C}$

Document number: BL/SSSTC086

Rev.A



# Silicon Epitaxial Planar Transistor

**SS8050** 

## ELECTRICAL CHARACTERISTICS @ $Ta=25^{\circ}$ C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA,I <sub>E</sub> =0	40			٧
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =2mA,I <sub>B</sub> =0	25			٧
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA,I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =40V,I <sub>E</sub> =0			0.1	μΑ
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =20V,I <sub>B</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V,I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =1V,I <sub>C</sub> =100mA	120		400	
		V <sub>CE</sub> =1V,I <sub>C</sub> =800mA	40			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =800 mA, I <sub>B</sub> = 80mA			0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =800 mA, I <sub>B</sub> = 80mA			1.2	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =1V I <sub>C</sub> =10mA			1	V
Transition frequency	f⊤	V <sub>CE</sub> =10V, I <sub>C</sub> = 50mA f=30MHz	100			MHz

### CLASSIFICATION OF $h_{FE(1)}$

Rank	L	н	J
Range	120-200	200-350	300-400

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## Silicon Epitaxial Planar Transistor

**SS8050** 

#### TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

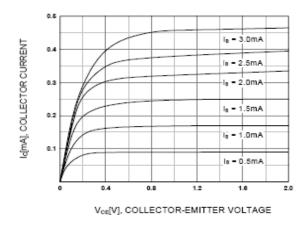


Figure 1. Static Characteristic

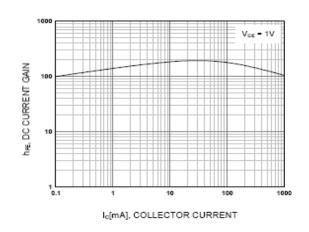


Figure 2. DC current Gain

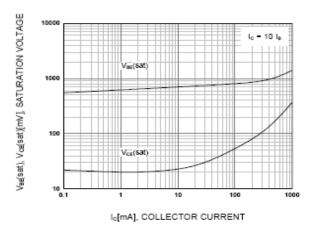


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

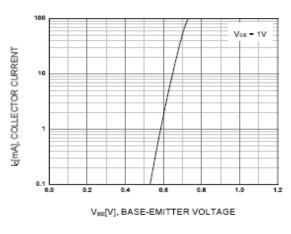


Figure 4. Base-Emitter On Voltage

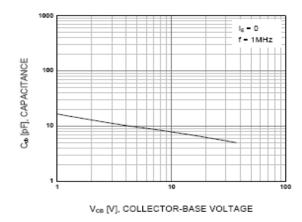


Figure 5. Collector Output Capacitance

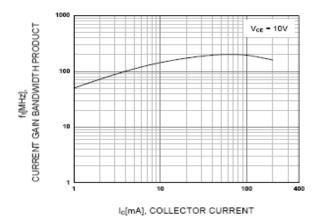


Figure 6. Current Gain Bandwidth Product

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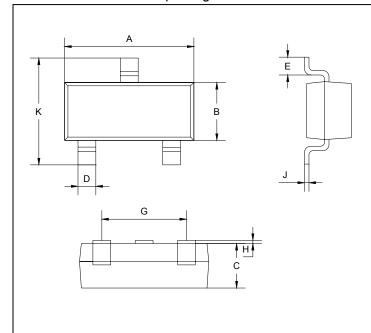
# Silicon Epitaxial Planar Transistor

**SS8050** 

### PACKAGE OUTLINE

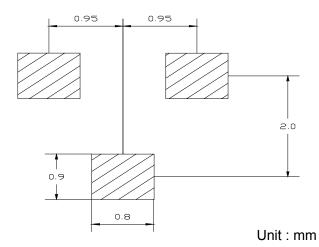
Plastic surface mounted package





SOT-23			
Dim	im Min Max		
Α	2.85	2.95	
В	1.25	1.35	
С	1.0Typical		
D	0.37	0.43	
E	0.35	0.48	
G	1.85 1.95		
Н	0.02	0.1	
J	J 0.1Typical		
K	2.35	2.45	
All Dimensions in mm			

#### **SOLDERING FOOTPRINT**



## PACKAGE INFORMATION

Device	Package	Shipping
SS8050	SOT-23	3000/Tape&Reel