

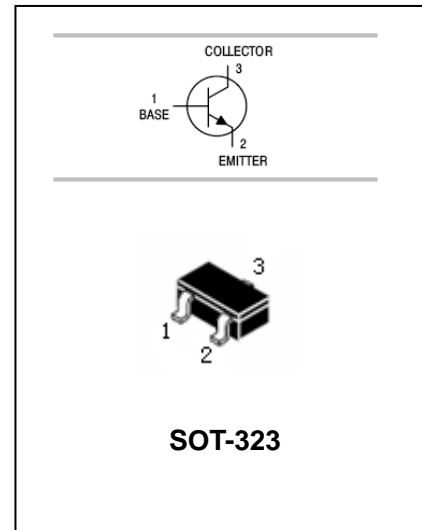


## Silicon Epitaxial Planar Transistor

## SS8050W

### FEATURES

- Collector Current:  $I_C = 1.5A$
- Complementary To SS8550W.
- Collector dissipation:  $P_C = 200mW (T_C = 25^\circ C)$



### APPLICATIONS

- High Collector Current.

### ORDERING INFORMATION

Type No.	Marking	Package Code
SS8050W	Y1	SOT-323

### MAXIMUM RATING @ $T_a = 25^\circ C$ unless otherwise specified

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	25	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	1.5	A
$P_C$	Collector Dissipation	200	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ C$

### ELECTRICAL CHARACTERISTICS @ $T_a = 25^\circ C$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 2mA, I_B = 0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	5		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 40V, I_E = 0$		0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE} = 20V, I_B = 0$		0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$		0.1	$\mu A$

**Silicon Epitaxial Planar Transistor**

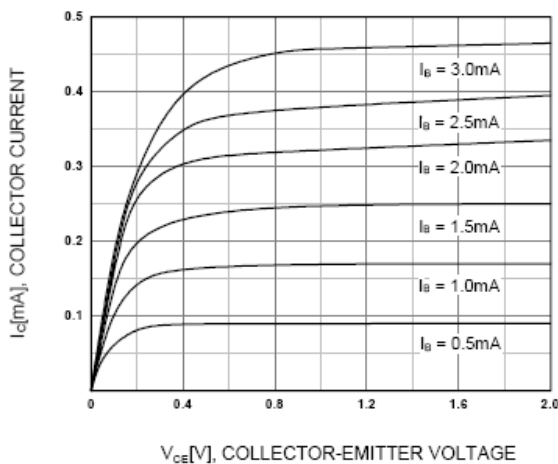
**SS8050W**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
DC current gain	$h_{FE}$	$V_{CE}=1V, I_C=100mA$	120	400	
		$V_{CE}=1V, I_C=800mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=800 mA, I_B= 80mA$		0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=800 mA, I_B= 80mA$		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

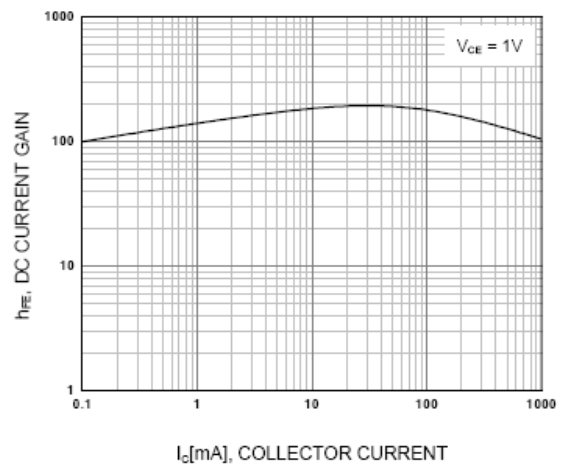
**CLASSIFICATION OF  $h_{FE(1)}$**

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

**TYPICAL CHARACTERISTICS @  $T_a=25^\circ C$  unless otherwise specified**



**Figure 1. Static Characteristic**



**Figure 2. DC current Gain**

Silicon Epitaxial Planar Transistor

SS8050W

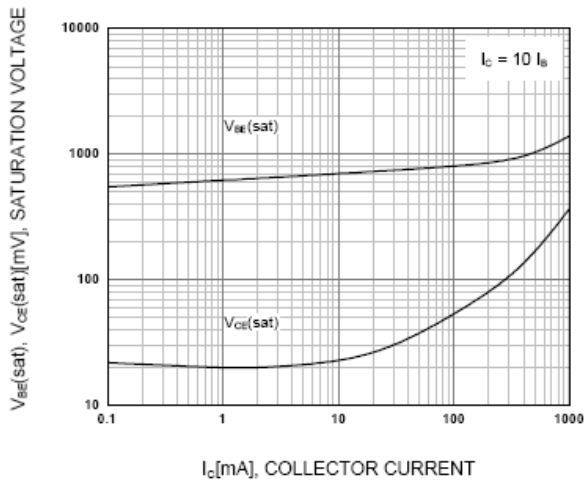


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

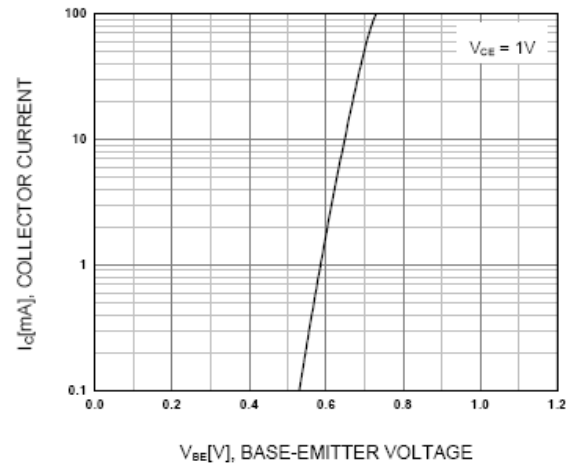


Figure 4. Base-Emitter On Voltage

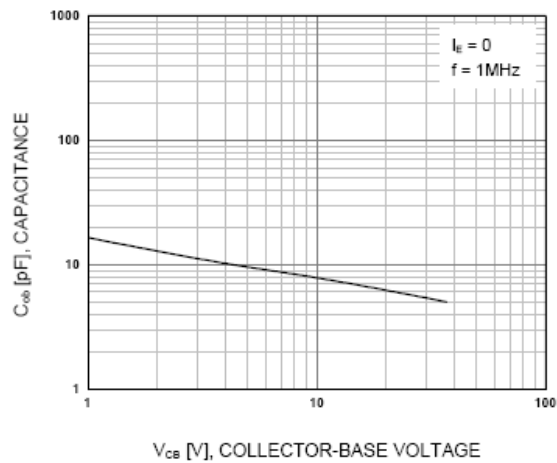


Figure 5. Collector Output Capacitance

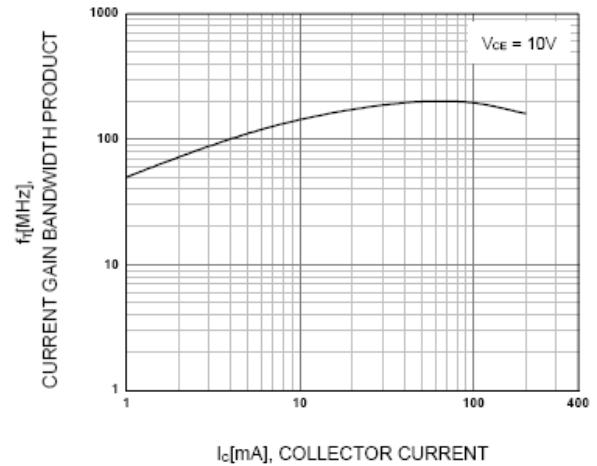


Figure 6. Current Gain Bandwidth Product

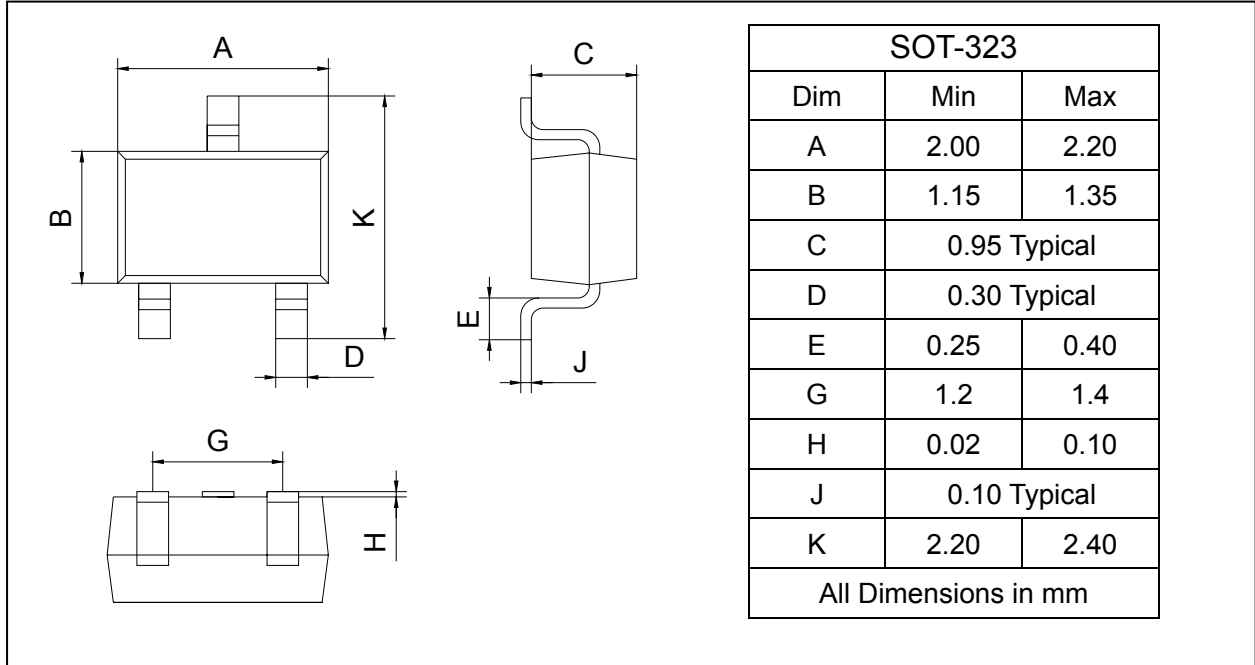
**Silicon Epitaxial Planar Transistor**

**SS8050W**

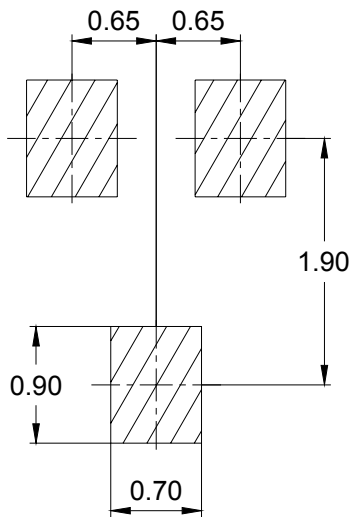
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-323



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

Device	Package	Shipping
SS8050W	SOT-323	3000/Tape&Reel