



Silicon Epitaxial Planar Transistor

SS8050W

FEATURES

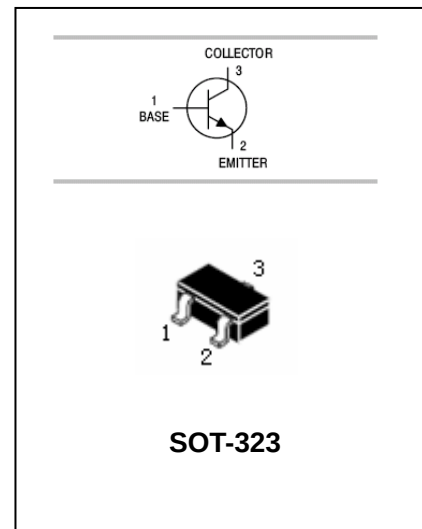
- Collector Current: ($I_C = 1.5A$)
- Complementary To SS8550W.
- Collector dissipation: $P_C = 200mW$ ($T_C = 25^\circ C$)



Lead-free

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	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 20V, I_B = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$		0.1	μA

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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	$V_{CE(sat)}$	$I_C=800mA, I_B=80mA$		0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=800mA, I_B=80mA$		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

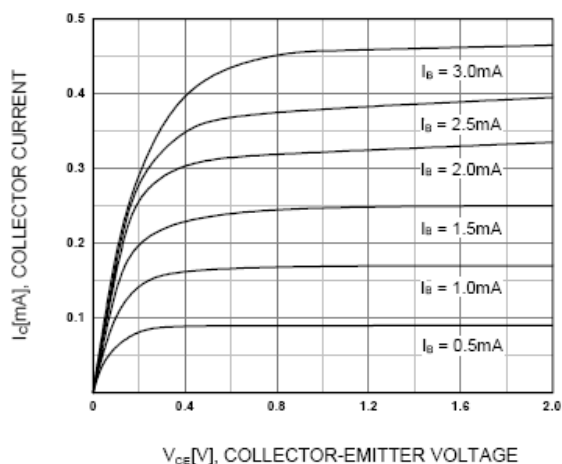


Figure 1. Static Characteristic

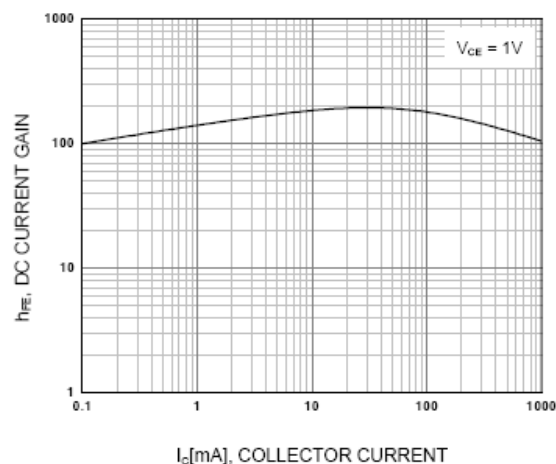
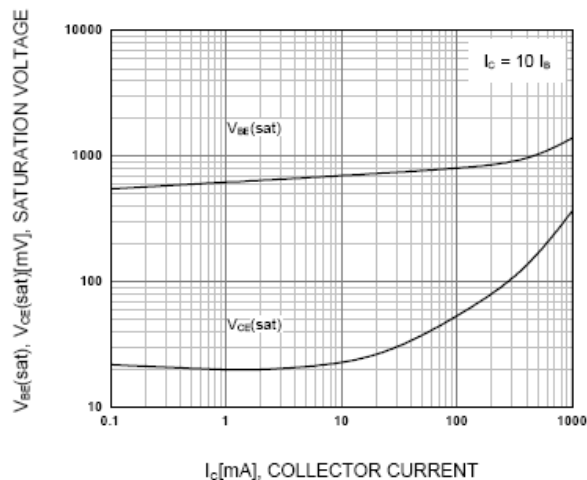


Figure 2. DC current Gain

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

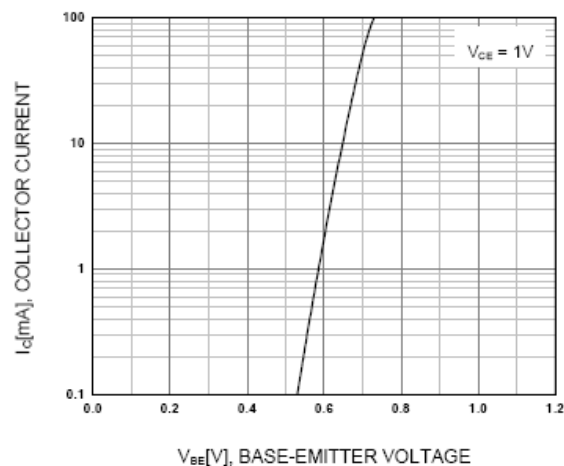


Figure 4. Base-Emitter On Voltage

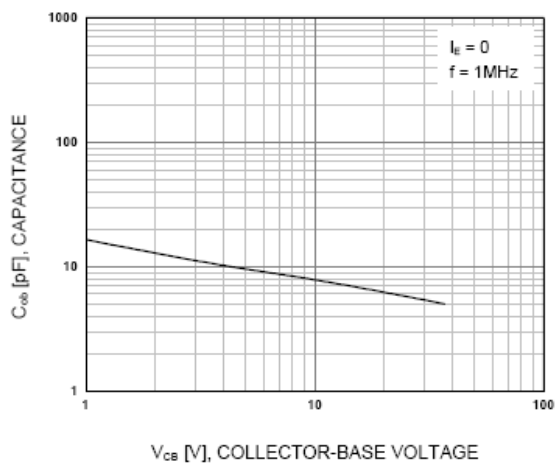


Figure 5. Collector Output Capacitance

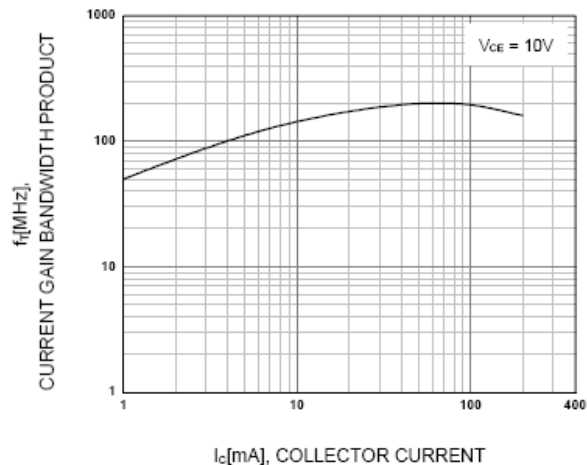


Figure 6. Current Gain Bandwidth Product

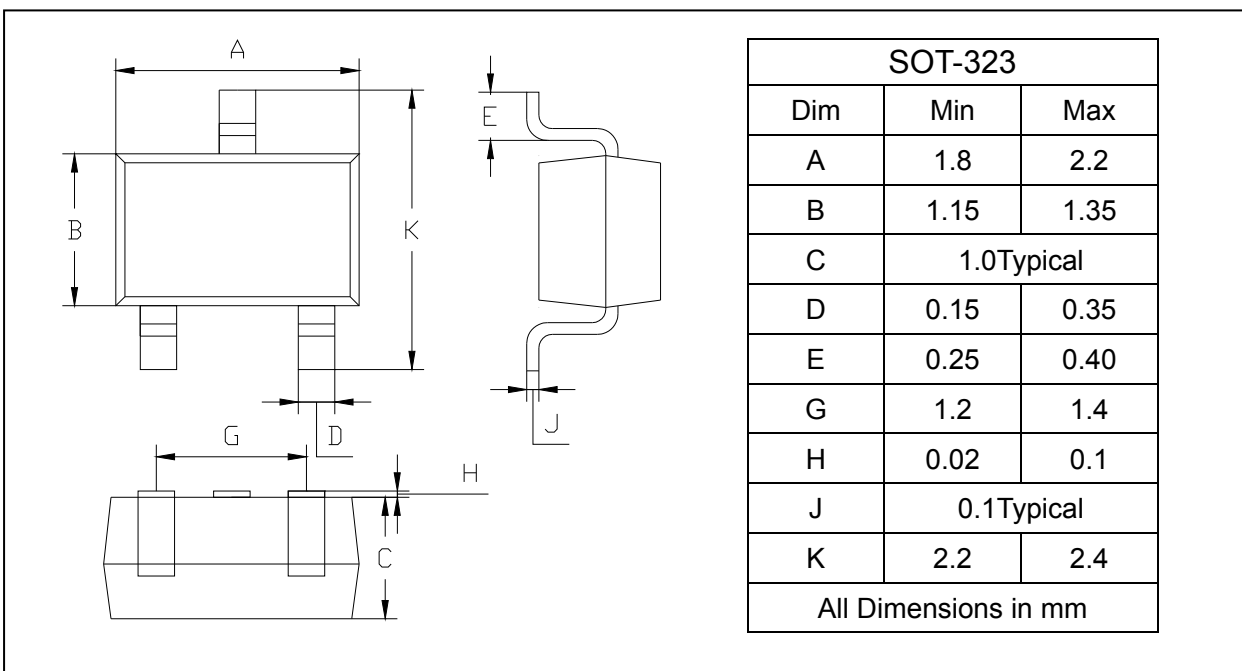
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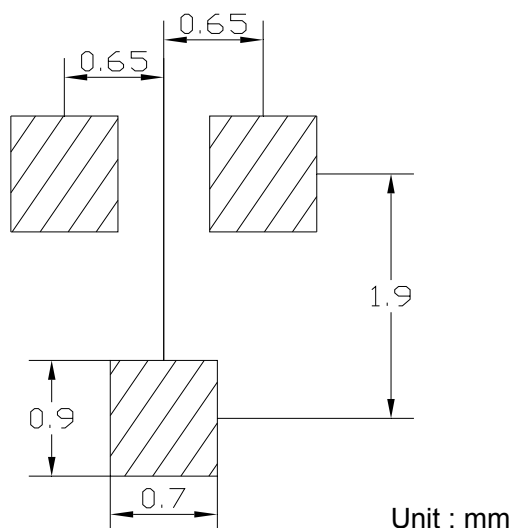
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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