

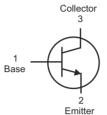
# SS8050-G (NPN) RoHS Device



#### Diagram:

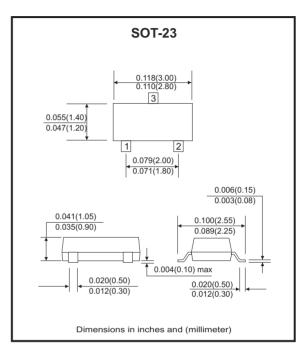
1 : BASE 2 : EMITTER

3 : COLLECTOR



### Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base voltage	Vсво	40	V
Collector-Emitter voltage	VCEO	25	V
Emitter-Base voltage	VEBO	5	V
Collector current	Ic	1.5	Α
Collector power dissipation	Pc	300	mW
Thermal resistance from junction to ambient	Reja	417	°C/W
Junction temperature	TJ	150	°C
Storage temperature	Tstg	-55~+150	°C



## Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Тур	Max	Unit
Collector-Base breakdown voltage	Ic =100μA , IE=0	V(BR)CBO	40	-	-	V
Collector-Emitter breakdown voltage	Ic =0.1mA , IB=0	V(BR)CEO	25	-	-	V
Emitter-Base breakdown voltage	IE =100μA , IC=0	V(BR)EBO	5	-	-	V
Collector cut-off current	Vcb=40V , IE=0	Ісво	-	-	0.1	μA
Collector cut-off current	Vc=20V , I=0	ICEO	-	-	0.1	μA
Emitter cut-off current	VEB=5V , IC=0	ІЕВО	-	-	0.1	μA
DC current gain	VcE=1V , Ic=100mA	hFE(1)	200	-	350	
DC current gain	VcE=1V , Ic=800mA	hFE(2)	40	-	-	
Collector-Emitter saturation voltage	Ic=800mA , IB=80mA	Vce(sat)	-	-	0.5	٧
Base-Emitter saturation voltage	Ic=800mA , Iв=80mA	V <sub>BE</sub> (sat)	-	-	1.2	V
Transition frequency	VcE=10V, Ic=50mA, f=30MHz	fτ	100	-	-	MHz

Company reserves the right to improve product design, functions and reliability without notice.



#### RATING AND CHARACTERISTIC CURVES (SS8050-G)

Fig.1 - Static Characteristic

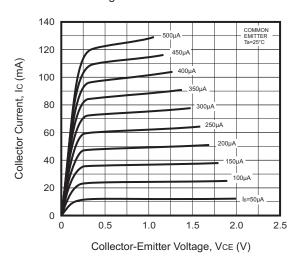


Fig.2 - hFE — Ic

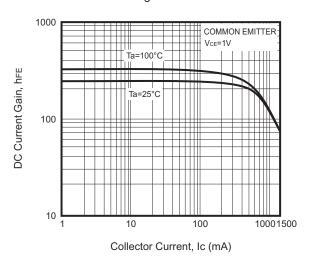


Fig.3 - VCEsat — Ic

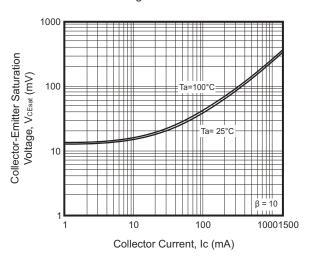


Fig.4 - VBEsat — Ic

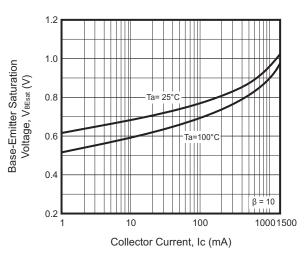
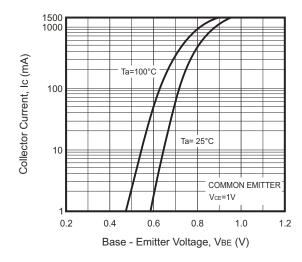
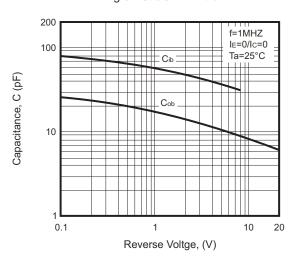


Fig.5 - VBE — Ic



 $Fig.6 - C_{\text{ob}}/C_{\text{ib}} - V_{\text{CB}}/V_{\text{EB}}$ 



Company reserves the right to improve product design, functions and reliability without notice.



#### RATING AND CHARACTERISTIC CURVES (SS8050-G)

Fig.7 - FT — Ic

1000

(NHW)

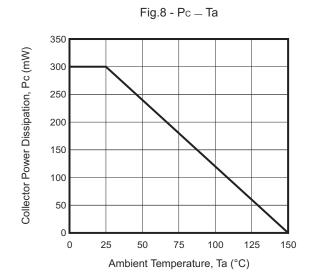
100

VcE=10V

Ta= 25°C

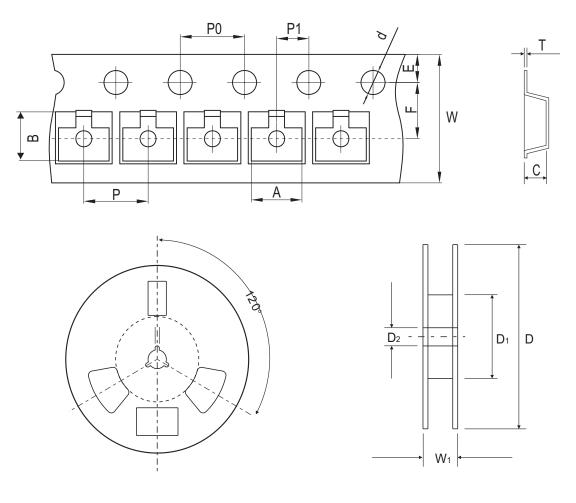
100

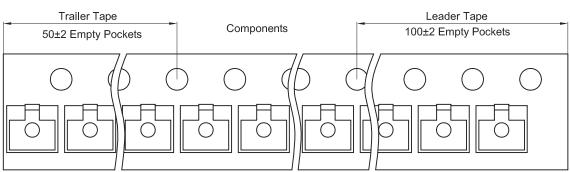
Collector Current, Ic (mA)





# **Reel Taping Specification**





		SYMBOL	Α	В	С	d	D	<b>D</b> 1	D2
ı	SOT-23	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	$\textbf{54.40} \pm \textbf{1.00}$	13.00 ± 1.00
ı		(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.087 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

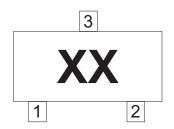
	SYMBOL	E	F	Р	Po	P1	W	<b>W</b> 1
SOT-23	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.



## **Marking Code**

Part Number	Marking Code
SS8050-G	Y1



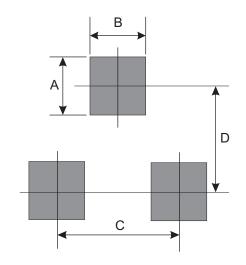
xx = Product type marking code

## **Suggested PAD Layout**

0175	SOT-23			
SIZE	(mm)	(inch)		
Α	0.80	0.031		
В	0.60	0.024		
С	1.90	0.075		
D	2.02	0.080		



- 1.General tolerance: ±0.05mm.
- 2. The pad layout is for reference purposes only.



### **Standard Packaging**

	REEL PACK			
Case Type	REEL ( pcs )	Reel Size (inch)		
SOT-23	3,000	7		