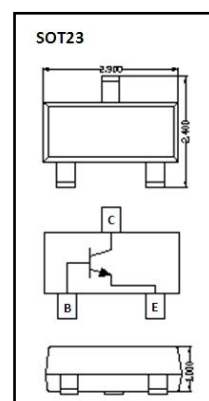


DATA SHEET

SS8050

- ◇ Capable of 300mWatts of Power Dissipation
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC
- ◇ Collector current: $I_C=1.5\text{A}$

Device Marking Code	
SS8050	Y1



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	40	V
V_{CE0}	Collector-Emitter Voltage	25	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current	1.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS @ 25°C Unless Otherwise Specified

Symbol	Parameter	Test Conditions	Min	Max	Units
V_{CE0}	Collector-emitter breakdown voltage	$I_C=0.1\text{mA}$, $I_B=0$	25		V
V_{CB0}	Collector-base breakdown voltage	$I_C=100\mu\text{A}$, $I_E=0$	40		V
V_{EB0}	Emitter-base breakdown voltage	$I_E=100\mu\text{A}$, $I_C=0$	5.0		V
I_{CB0}	Collector cutoff current	$V_{CB}=40\text{V}$, $I_E=0\text{V}$		100	nA

I_{EBO}	Emitter cut-off current	$V_{EB}=5V, I_C=0$		100	nA
I_{CEO}	Collector cut-off current	$V_{CB}=20V, I_E=0$		100	nA
h_{FE}	DC current gain	$h_{FE(1)} I_C=100mA, V_{CE}=1V$ $h_{FE(2)} I_C=800mA, V_{CE}=1V$	120 40	400	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=800mA, I_B=80mA$		0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=800mA, I_B=80mA$		1.2	V
f_T	Transition frequency	$I_C=50mA, V_{CE}=10V, f=30MHz$	100		MHZ

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	120-200	200-350

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
SS8050	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline : SOT23

The diagram illustrates the SOT23 package outline in three views: top, side, and cross-sectional. The top view shows a rectangular package with dimensions A (total width), B (body width), C (lead width), D (lead thickness), E (pitch), and F (lead offset). The side view shows the package height H and the lead thickness J. The cross-sectional view shows the lead thickness K and the package height L. The package is shown with a central body and two leads on either side.

SOT23 Package Outline

Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:

1. Halogen free ,EMC
2. Pb free solder
3. Lead thickness solder plating
4. Lead frame CAC-5
5. Other Tolerance ± 0.05
6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
7. Unit : mm

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