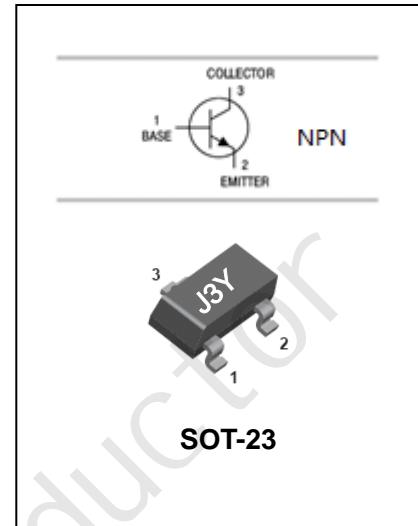


## FEATURES

- High Collector Current.( $I_C = 500\text{mA}$ ).
- Complementary To S8550.
- Excellent  $H_{FE}$  Linearity.
- High total power dissipation.( $P_C=300\text{mW}$ ).



## APPLICATIONS

- High Collector Current..

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

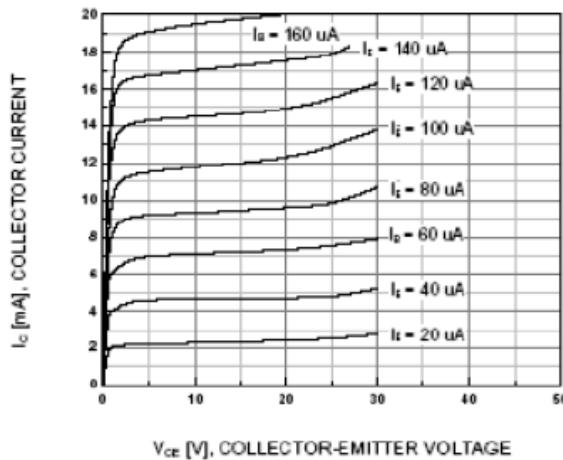
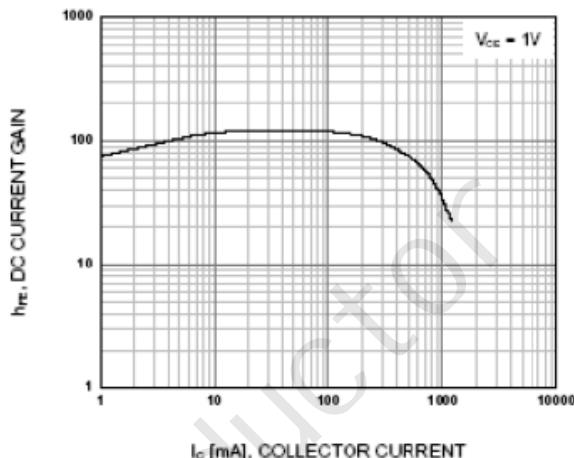
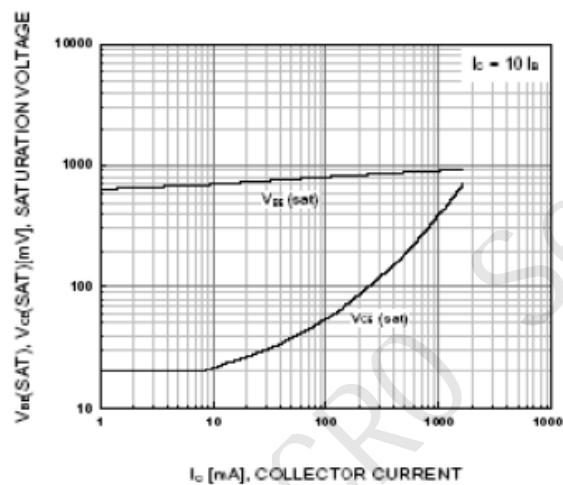
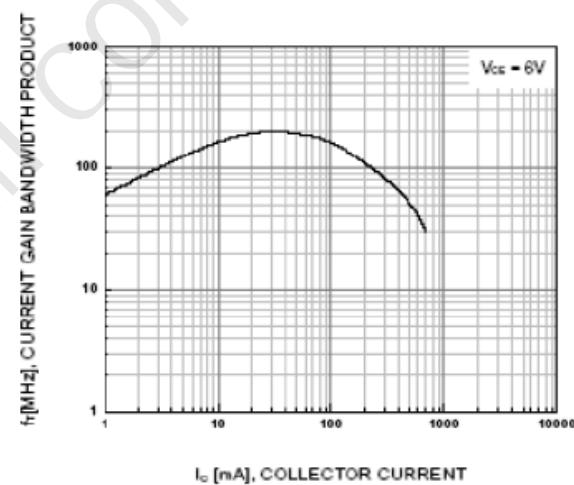
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	25	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	500	mA
$P_C$	Collector Dissipation	300	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	°C

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	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	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=1V, I_C=50mA$ $V_{CE}=1V, I_C=500mA$	120 50		350	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B= 50mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B= 50mA$			1.2	V
Transition frequency	$f_T$	$V_{CE}=6V, I_C= 20mA$ $f=30MHz$	150			MHz

CLASSIFICATION OF  $h_{FE(1)}$ 

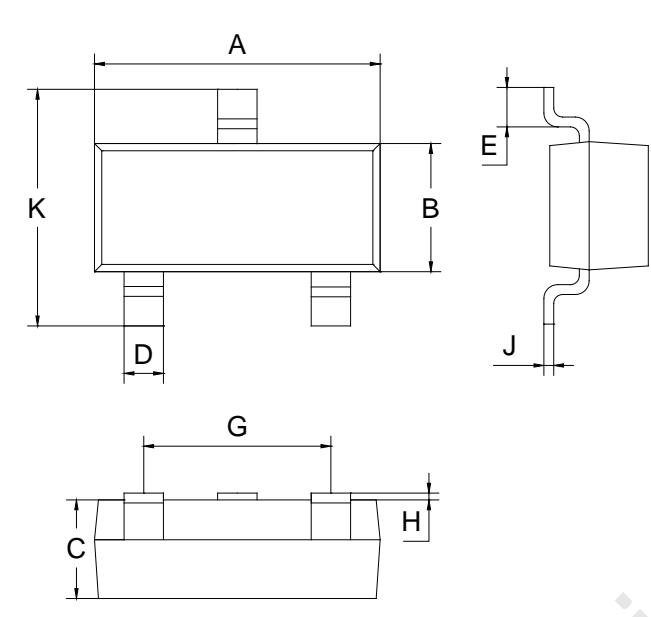
Rank	L	H
Range	120-200	200-350

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

**Figure 1. Static Characteristic**

**Figure 2. DC current Gain**

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

**Figure 4. Current Gain Bandwidth Product**

## PACKAGE OUTLINE

Plastic surface mounted package

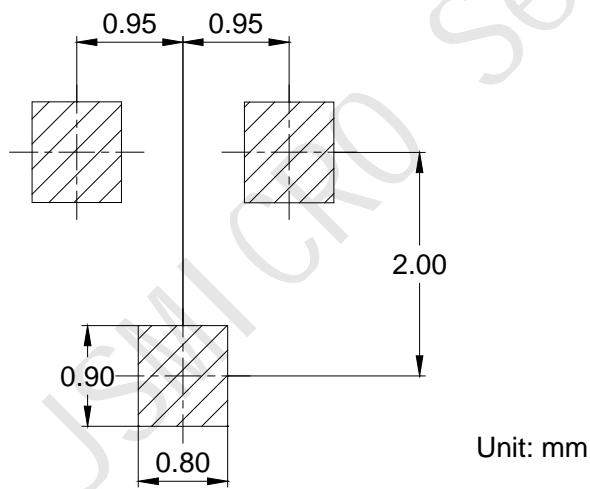
SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

All Dimensions in mm

## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

Device	Package	Shipping
S8050	SOT-23	3000/Tape&Reel