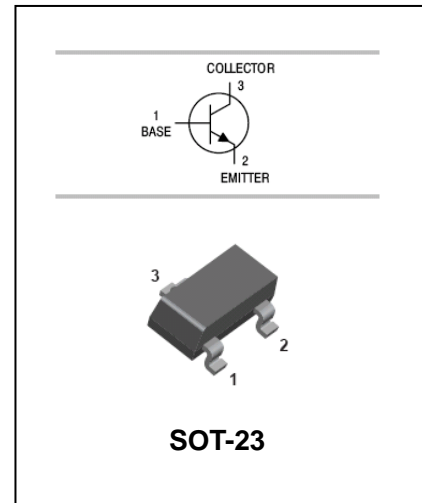


## Silicon Epitaxial Planar Transistor

## M8050

### FEATURES

- High Collector Current.( $I_C= 800\text{mA}$ ).
- Complementary To M8550.
- Excellent  $H_{FE}$  Linearity.
- High total power dissipation.( $P_C=200\text{mW}$ ).



### APPLICATIONS

- High Collector Current..

### ORDERING INFORMATION

Type No.	Marking	Package Code
M8050	Y11	SOT-23

### 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	6	V
$I_C$	Collector Current -Continuous	800	mA
$P_C$	Collector Dissipation	200	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$



**Silicon Epitaxial Planar Transistor**

**M8050**

**ELECTRICAL CHARACTERISTICS @ Ta=25°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	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=35V, I_E=0$			0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=20V, I_B=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=1V, I_C=5mA$ $V_{CE}=1V, I_C=100mA$ $V_{CE}=1V, I_C=800mA$	45 80 40		300	
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
Transition frequency	$f_T$	$V_{CE}=6V, I_C=20mA$ $f=30MHz$	150			MHz

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

Rank	L	H
Range	80-200	200-300

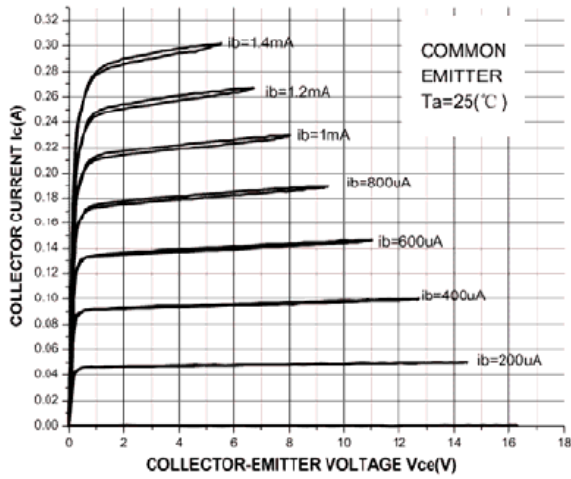
**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**



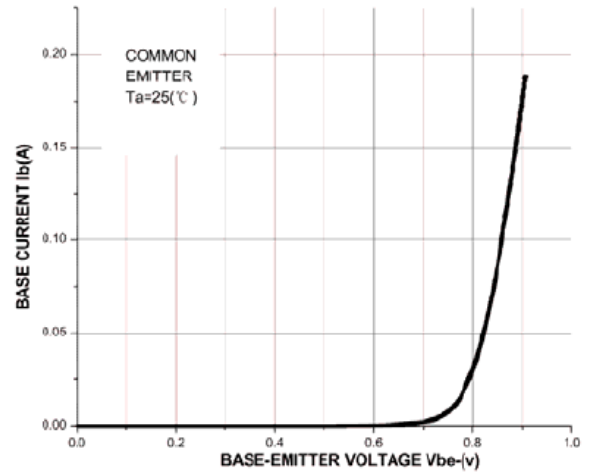
Silicon Epitaxial Planar Transistor

M8050

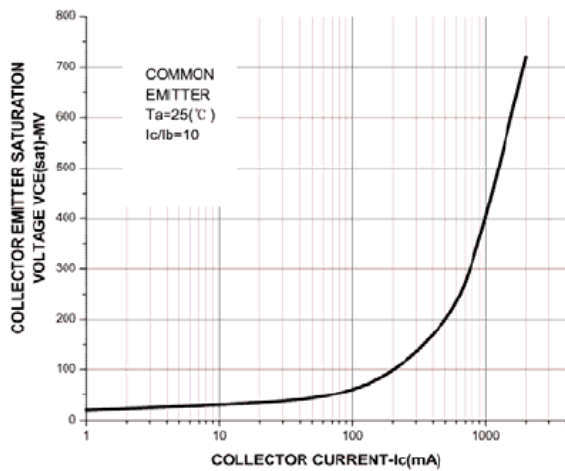
Ic-Vce



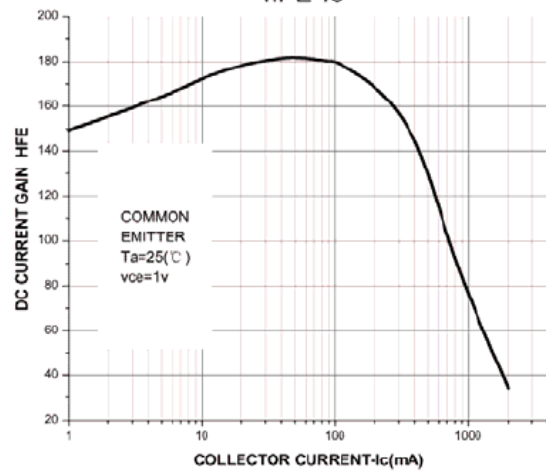
Ib-Vbe



Vcesat-Ic



hFE-Ic



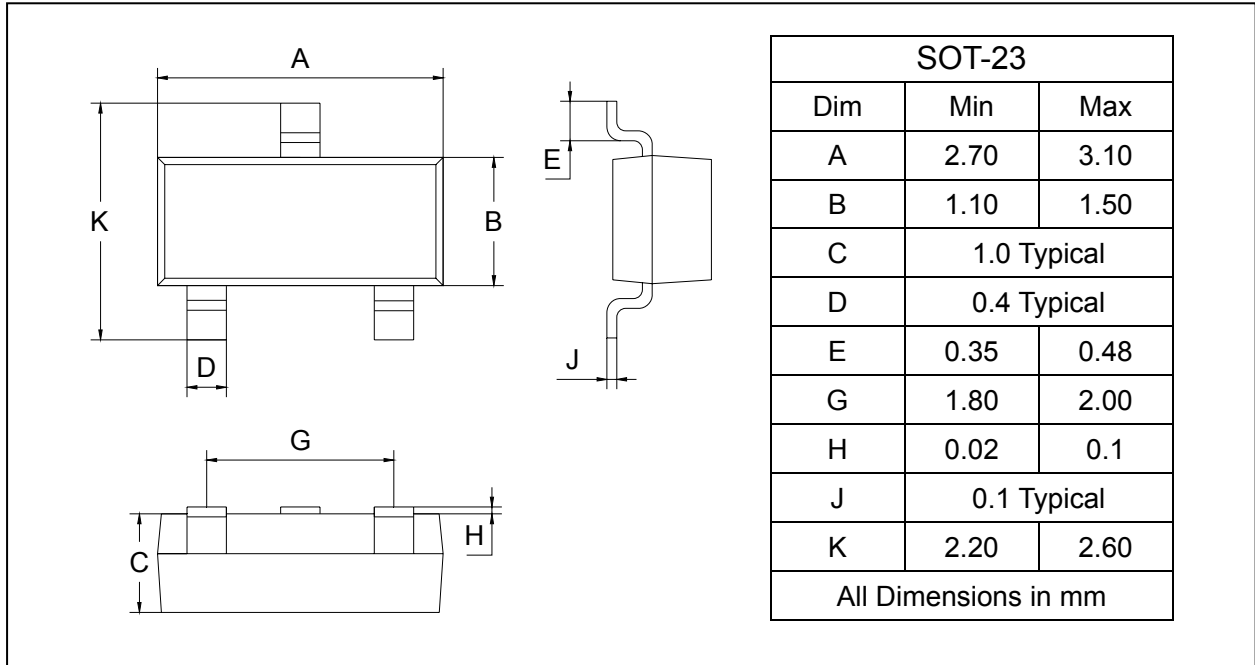
# Silicon Epitaxial Planar Transistor

# M8050

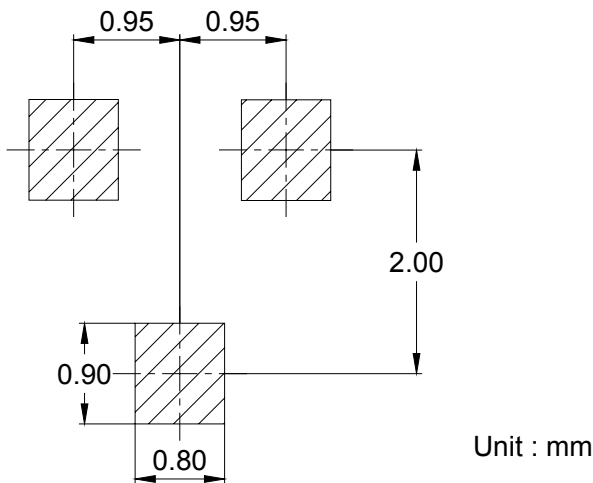
## PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

Device	Package	Shipping
M8050	SOT-23	3000/Tape&Reel