

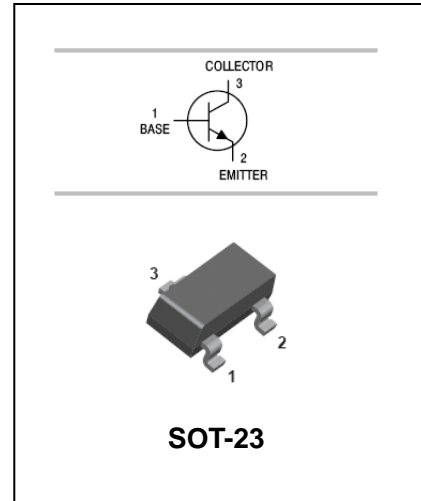
Silicon Epitaxial Planar Transistor

M8050

FEATURES

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

HF



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	$^\circ\text{C}$

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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	μA
Collector cut-off current	I_{CEO}	$V_{CE}=20V, I_B=0$			0.1	μA
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 $h_{FE(1)}$

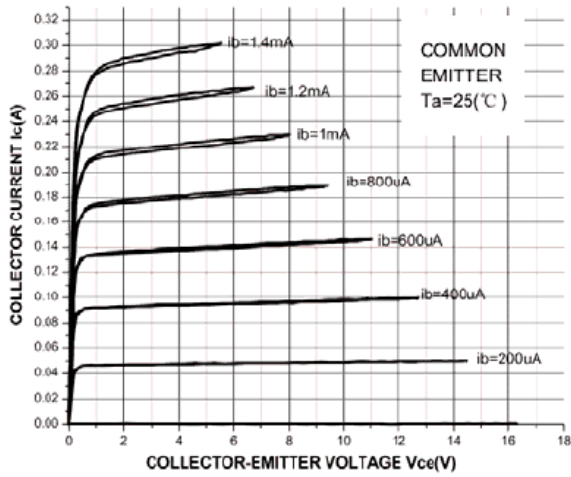
Rank	L	H
Range	80-200	200-300

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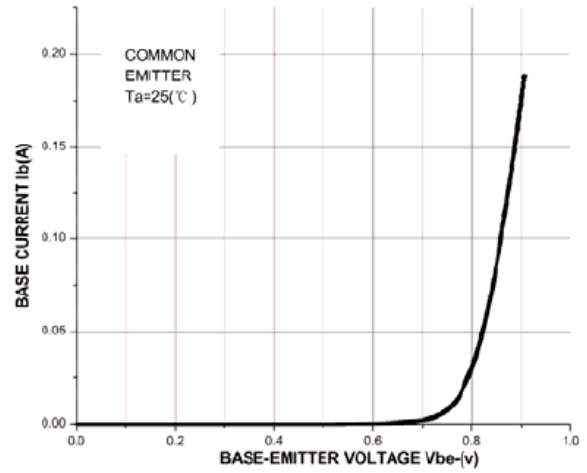
M8050

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

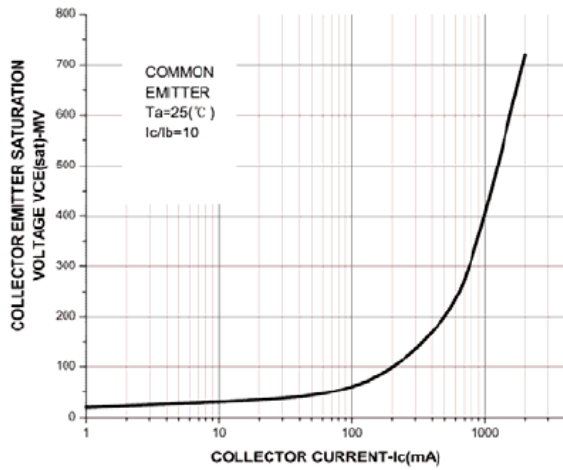
Ic-Vce



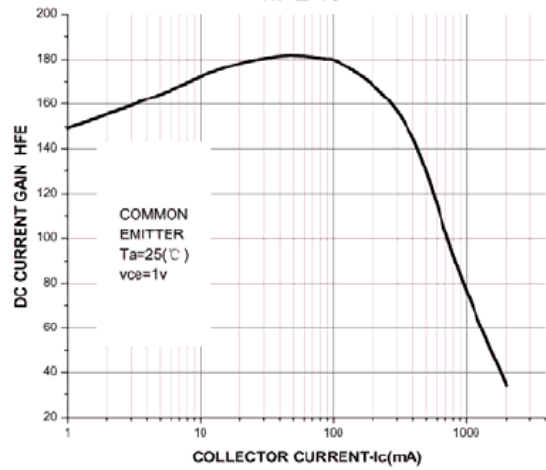
Ib-Vbe



Vcesat-Ic



hFE-Ic



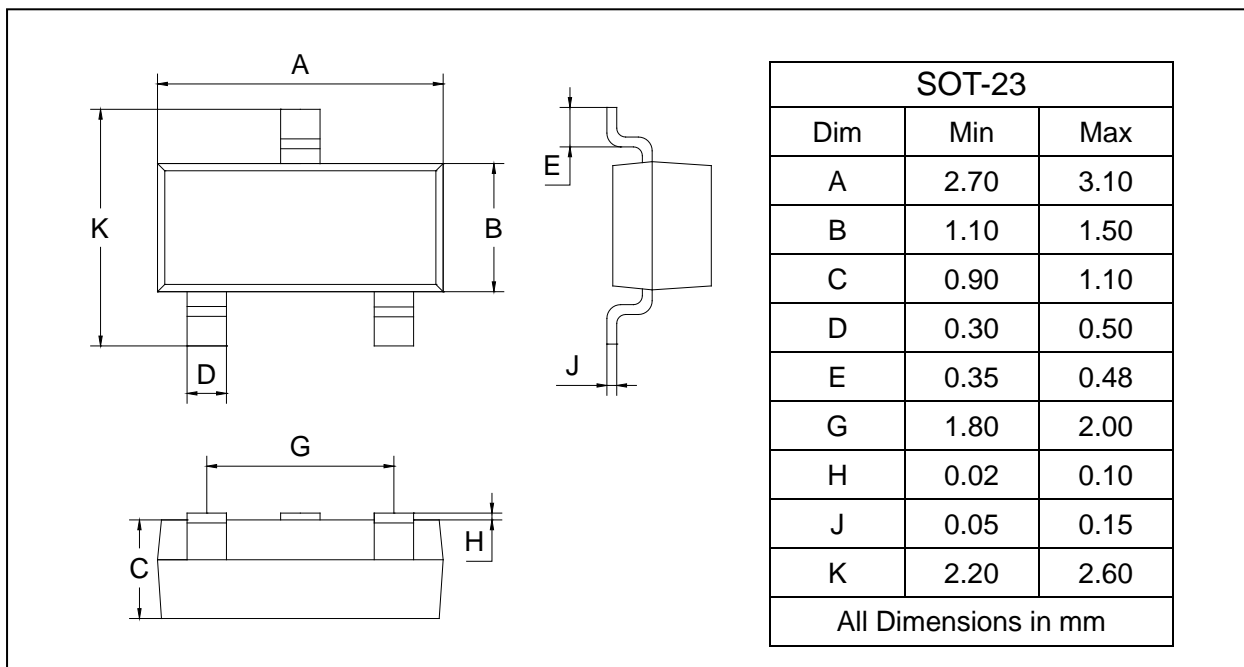
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M8050

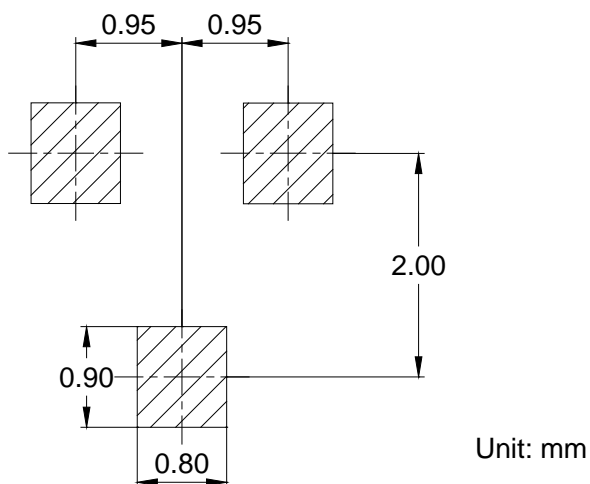
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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