



Micro Commercial Components

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**MS8050-L  
 MS8050-H**

**Features**

- SOT-23 Plastic-Encapsulate Transistors
- Capable of 0.2Watts( $T_{amb}=25^{\circ}C$ ) of Power Dissipation.
- Collector-current 0.8A
- Collector-base Voltage 40V
- Operating and storage junction temperature range:  $-55^{\circ}C$  to  $+150^{\circ}C$
- Marking Code: Y11
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

**NPN Silicon  
 Plastic-Encapsulate  
 Transistor**

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu A, I_E=0$ )	40	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=1mA, I_B=0$ )	25	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=100\mu A, I_C=0$ )	6.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=35Vdc, I_E=0$ )	---	0.1	$\mu A$
$I_{CEO}$	Collector Cutoff Current ( $V_{CE}=20Vdc, I_B=0$ )	---	0.1	$\mu A$

**ON CHARACTERISTICS**

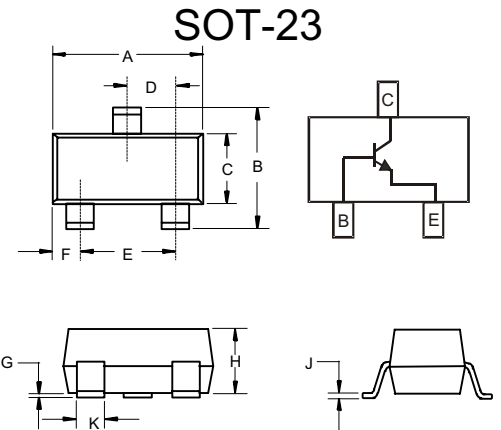
$h_{FE(1)}$	DC Current Gain ( $I_C=5mA, V_{CE}=1.0Vdc$ )	45		
$h_{FE(2)}$	DC Current Gain ( $I_C=100mA, V_{CE}=1.0Vdc$ )	80	300	
$h_{FE(3)}$	DC Current Gain ( $I_C=800mA, V_{CE}=1.0Vdc$ )	40		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=800mA, I_B=80mA$ )	---	0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=800mA, I_B=80mA$ )	---	1.2	Vdc

**SMALL-SIGNAL CHARACTERISTICS**

$f_T$	Transistor Frequency ( $I_C=20mA, V_{CE}=6.0Vdc, f=30MHz$ )	150	---	MHz
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**CLASSIFICATION OF  $h_{FE(2)}$**

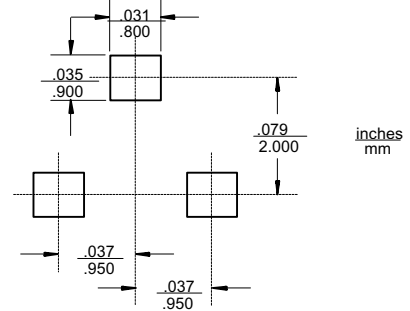
Rank	L	H
Range	80-200	200-300



**DIMENSIONS**

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

**Suggested Solder Pad Layout**

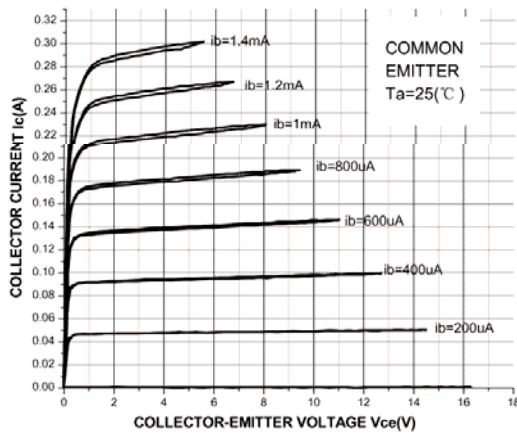


# Typical Characteristics

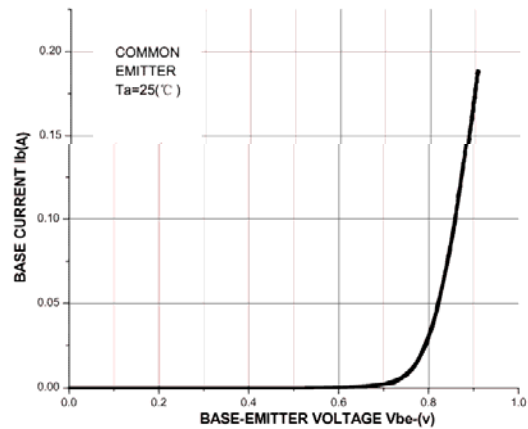
**MS8050-L**

**MS8050-H**

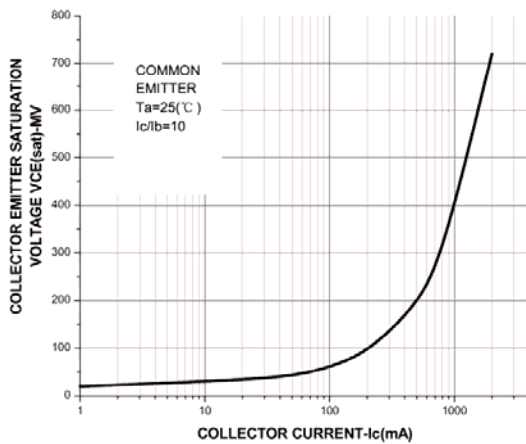
Ic-Vce



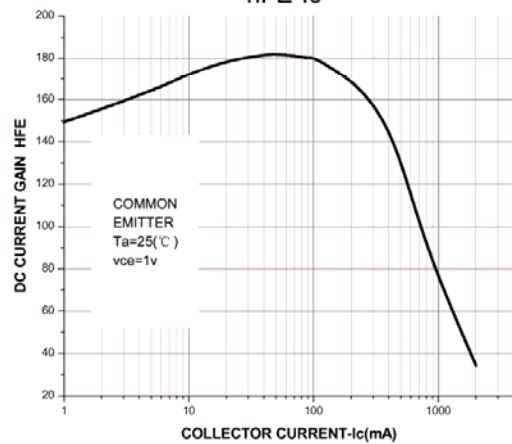
Ib-Vbe



Vcesat-Ic



hFE-Ic





TM

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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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