

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Micro Commercial Components** 



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## MMS8050-L MMS8050-H

### **Features**

- Halogen free available upon request by adding suffix "-HF"
- SOT-23 Plastic-Encapsulate Transistors
- Capable of 0.3Watts(Tamb=25°C) of Power Dissipation.
- Collector-current 0.5A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: -55°C to +150°C
- Marking Code: J3Y
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

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

Symbol	Parameter	Min	Max	Units	
OFF CHARAC	CTERISTICS				
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage 40 \ (๒=100µAdc, ๒=0)				
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (b=0.1mAdc, l <sub>B</sub> =0)	25	-	Vdc	
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (½=100µAdc, l <sub>C</sub> =0)	5.0		Vdc	
Сво	Collector Cutoff Current (V <sub>CB</sub> =40Vdc, $\xi$ =0)		0.1	μAdc	
PEO	Collector Cutoff Current (V <sub>CE</sub> =20Vdc, <sub>b</sub> =0)		0.1	μAdc	
l <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =5.0Vdc,		0.1	μAdc	

### **ON CHARACTERISTICS**

h <sub>FE(1)</sub>	DC Current Gain	120	350	
	(b=50mAdc, Vce=1.0Vdc)			
h <sub>FE(2)</sub>	DC Current Gain	50		
	(b=500mAdc, V <sub>CE</sub> =1.0Vdc)			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		0.6	Vdc
	(b=500mAdc, l <sub>B</sub> =50mAdc)			
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		1.2	Vdc
	(b=500mAdc, l <sub>B</sub> =50mAdc)			
V <sub>EB</sub>	Base- Emitter Voltage		1.4	Vdc
	(I <sub>E</sub> =100mAdc)			

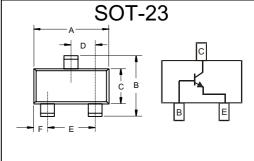
### **SMALL-SIGNAL CHARACTERISTICS**

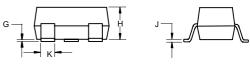
f <sub>T</sub>	Transistor Frequency	150	 MHz
	( $\xi$ =20mAdc, $V_{CE}$ =6.0Vdc, f=30MHz)		

### CLASSIFICATION OF HEEED

Rank	L	Н		
Range	120-200	200-350		

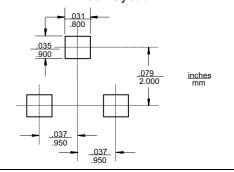
# NPN Silicon Plastic-Encapsulate Transistor





	DIMENSIONS				
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.110	.120	2.80	3.04	
В	.083	.104	2.10	2.64	
С	.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	
Н	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout





#### **Micro Commercial Components**

### Ordering Information:

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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

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