

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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## MPSA06

## **Features**

- Halogen free available upon request by adding suffix "-HF"
- NPN Silicon Epitaxial Planar Transistor for switching and amplifier applications
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- As complementary type, the PNP transistor is MPSA56
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

# **Mechanical Data**

- Marking:MPSA06
- Weight: 0.18 grams (Approx.)

### Maximum Ratings @ 25°C Unless Otherwise Specified

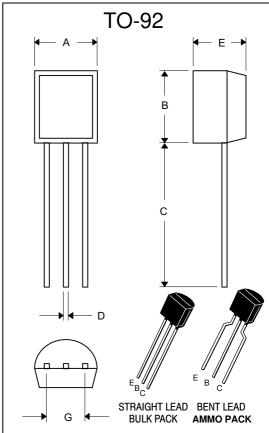
Characteristic	Symbol	Value	Unit
Collect to Base Voltage	V <sub>CBO</sub>	80	٧
Collect to Emitter Voltage	Vceo	80	٧
Emitter to Base Voltage	V <sub>EBO</sub>	4.0	V
Collect Current	lc	500	mA
Total Power Dissipation @ T <sub>A</sub> =25°C	P <sub>tot</sub>	625	mW
Total Power Dissipation @ Tc=25°C	Ptot	1.5	W
Thermal Resistance Junction to Ambient	$R_{ hetaJA}$	200	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C

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

				1		
Charateristic	Symbol	Min	Max	Unit	Test Cond.	
Collector Cut-off Current	I <sub>CBO</sub>		100	nA	$V_{CB} = 80V, I_{E} = 0$	
Collector to Emitter Saturatuion Voltage	V <sub>CE(sat)</sub>		0.25	٧	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	
DC Current Gain	h <sub>FE</sub>	100 100			V <sub>CE</sub> =1V, I <sub>C</sub> =10mA V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	
Gain Bandwidth Product	f <sub>T</sub>	100		MHz	V <sub>CE</sub> =2V, I <sub>C</sub> =20mA, f=100MHz	
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	80		٧	I <sub>C</sub> =1mA, I <sub>B</sub> =0	
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	4		V	I <sub>E</sub> =100 uA, I <sub>C</sub> =0	
Base-Emitter ON Voltage	V <sub>BE(ON)</sub>		1.2	V	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA	

**Note**: Valid provided that leads are kept at ambient temperature.

# NPN Small Signal Transistor 625 mW



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.175	.185	4.45	4.70	
В	.175	.185	4.45	4.70	
С	.500		12.70		
D	.016	.020	0.41	0.63	
Е	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
G	.173	.220	4.40	5.60	Bent Lead

<sup>\*</sup> For ammo packing detailed specification, click here to visit our website of product packaging for details.

www.mccsemi.com

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### **Micro Commercial Components**

### **Ordering Information:**

Device	Packing	
Part Number-AP	Ammo Packing: 20Kpcs/Carton	
Part Number-BP	Bulk: 100 Kpcs/Carton	

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

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