



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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# MPSA55 MPSA56

## Features

- Halogen free available upon request by adding suffix "-HF"
- Capable of 1.5Watts of Power Dissipation.
- Collector-current 500mA
- Collector-base Voltage 80V
- Operating and storage junction temperature range: -55°C to +150°C
- Marking: MPSA55, MPSA56
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	80	V
V <sub>CBO</sub>	Collector-Base Voltage	80	V
V <sub>EBO</sub>	Emitter-Base Voltage	4.0	V
I <sub>C</sub>	Collector Current Continuous	500	mA
P <sub>D</sub>	Total Device Dissipation @T <sub>A</sub> =25°C	625	mW
	Derate above 25°C	5.0	mW/°C
P <sub>D</sub>	Total Device Dissipation @T <sub>A</sub> =25°C	1.5	W
	Derate above 25°C	12	mW/°C
T <sub>J</sub>	Junction Temperature	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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### OFF CHARACTERISTICS

V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage <sup>(1)</sup> (I <sub>C</sub> =1.0mA, I <sub>B</sub> =0)	MPSA55 60		Vdc
		MPSA56 80		
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage (I <sub>E</sub> =100µA, I <sub>C</sub> =0)	4.0		Vdc
I <sub>CES</sub>	Collector Cutoff Current (V <sub>CE</sub> =60Vdc, I <sub>B</sub> =0)		0.1	µAdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =60Vdc, I <sub>E</sub> =0)		0.1	µAdc
		MPSA55 (V <sub>CB</sub> =80Vdc, I <sub>E</sub> =0)		
		MPSA56	0.1	µAdc

### ON CHARACTERISTICS<sup>(1)</sup>

h <sub>FE(1)</sub>	DC Current Gain (I <sub>C</sub> =10mA, V <sub>CE</sub> =1.0Vdc)	100		
h <sub>FE(2)</sub>	DC Current Gain (I <sub>C</sub> =100mA, V <sub>CE</sub> =1.0Vdc)	100		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =100mA, I <sub>B</sub> =10mA)		0.25	Vdc
V <sub>BE(on)</sub>	Base-Emitter Saturation Voltage (I <sub>C</sub> =100mA, V <sub>CE</sub> =1.0Vdc)		1.2	Vdc

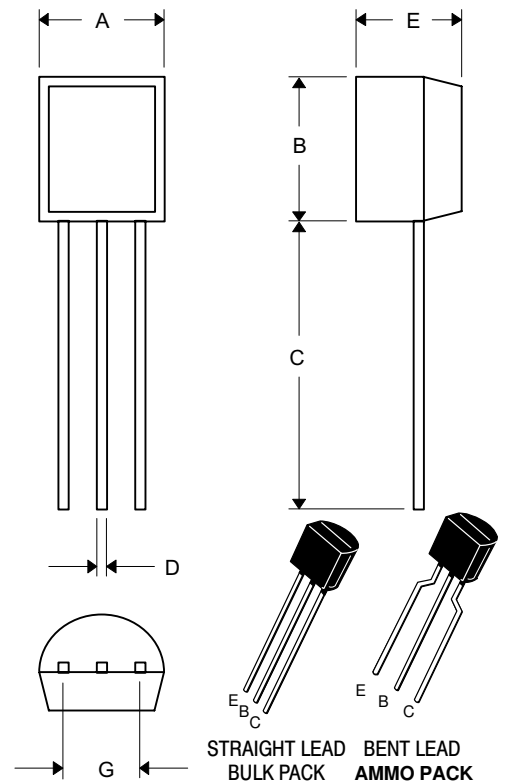
### SMALL-SIGNAL CHARACTERISTICS

f <sub>T</sub>	Current-Gain – Bandwidth Product <sup>(3)</sup> (I <sub>C</sub> =100mA, V <sub>CE</sub> =1.0Vdc, f=100MHz)	MPSA55 50		MHz
		MPSA56		

1. Pulse Test: Pulse Width<300µs, Duty Cycle<2.0%
2. f<sub>T</sub> is defined as the frequency at which |h<sub>fe</sub>| extrapolates to unity.

## PNP Silicon Amplifier Transistor

### TO-92



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

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



Micro Commercial Components

### Ordering Information :

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

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

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