



Micro Commercial Components

Micro Commercial Components  
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# MPSA55 MPSA56

## Features

- 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
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking: MPSA55--MPSA55, MPSA56--MPSA56.

## PNP Silicon Amplifier Transistor

## 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 MPSA56	60 80	Vdc
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) (V <sub>CB</sub> =80Vdc, I <sub>E</sub> =0)	MPSA55 MPSA56	0.1 0.1	µAdc

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

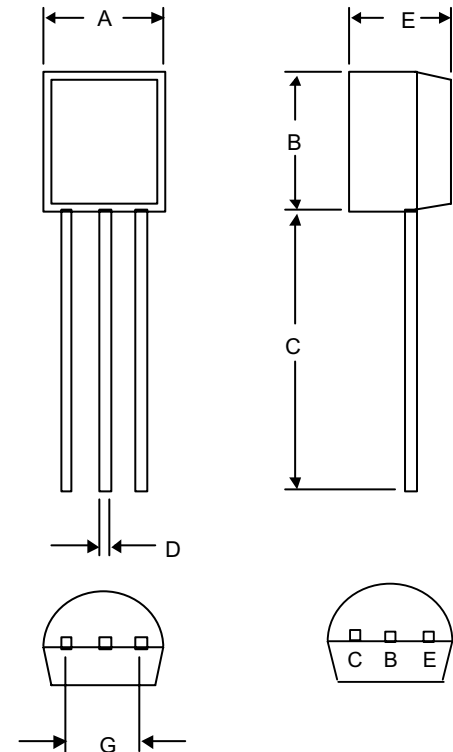
h <sub>FE(1)</sub>	DC Current Gain (I <sub>C</sub> =10mA, V <sub>CE</sub> =1.0Vdc)	100		
h <sub>FE(2)</sub>	DC Current Gain (I <sub>C</sub> =100mA, V <sub>CE</sub> =1.0Vdc)	100		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =100mA, I <sub>B</sub> =10mA)		0.25	Vdc
V <sub>BE(on)</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 MPSA56	50	MHz
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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.

## TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	



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