



Micro Commercial Components



Micro Commercial Components  
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# MPSA93

## Features

- Through Hole Package
- 150°C Junction Temperature
- Complementary to MPSA42/43
- 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
- Marking:A93

## Maximum Ratings

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	-200	V
V <sub>CBO</sub>	Collector-Base Voltage	-200	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5.0	V
I <sub>C</sub>	Collector Current	-500	mA
I <sub>E</sub>	Emitter Current	500	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
T <sub>J</sub>	Junction Temperature	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* (I <sub>C</sub> =1.0mA, I <sub>B</sub> =0)	-200	---	Vdc
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage (I <sub>E</sub> =100µA, I <sub>C</sub> =0)	-200	---	Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =-150Vdc, I <sub>E</sub> =0)	---	-0.25	µAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =-3.0Vdc, I <sub>C</sub> =0)	---	-0.1	µAdc

### OFF CHARACTERISTICS

*h <sub>FE</sub>	DC Current Gain (V <sub>CE</sub> =-10Vdc, I <sub>C</sub> =-1.0mA) (V <sub>CE</sub> =-10Vdc, I <sub>C</sub> =-10mA) (V <sub>CE</sub> =-10Vdc, I <sub>C</sub> =-30mA)	25 40 25	---	---
*V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-20mA, I <sub>B</sub> =-2.0mA)	---	-0.5	Vdc
*V <sub>BE(on)</sub>	Base-Emitter On Voltage (I <sub>C</sub> =-20mA, I <sub>B</sub> =-2.0mA)	---	-0.9	Vdc

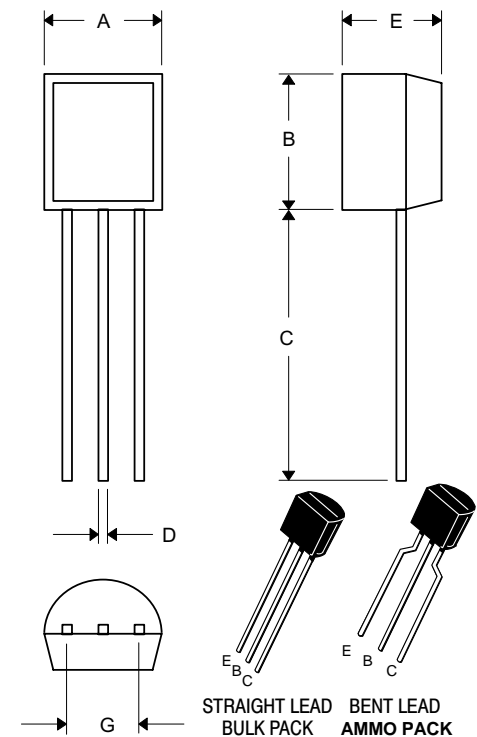
### Small Signal Characteristics

f <sub>T</sub>	Current Gain Bandwidth Product (I <sub>C</sub> =-10mA, V <sub>CE</sub> =-20Vdc, f=100MHz)	50	---	MHz
C <sub>ob</sub>	Collector Output Capacitance (I <sub>E</sub> =0mA, V <sub>CB</sub> =-20Vdc, f=1MHz)		8.0	pF

\* Pulse Test: Pulse Width ≤ 300µs, Duty Cycle ≤ 2.0%

## Epitaxial Planar PNP Transistor

### TO-92



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.



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### Ordering Information :

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

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