

## Features

- Through Hole Package
- 150°C Junction Temperature
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

## Mechanical Data

- Case: TO-92, Molded Plastic
- Marking:A94

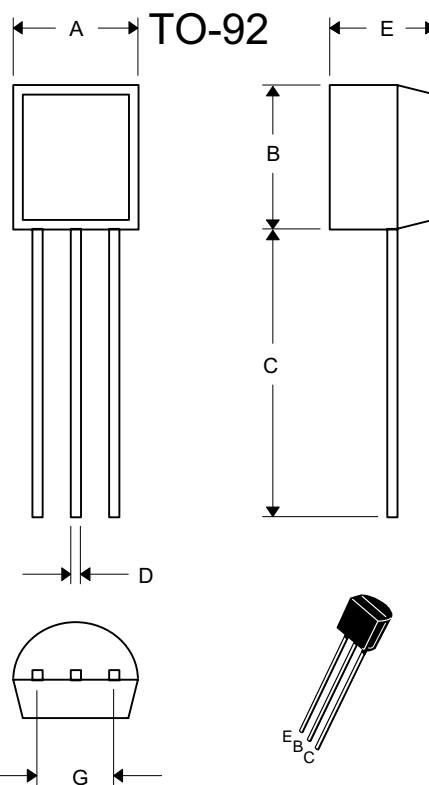
## Maximum Ratings @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	-400	V
Collector-Base Voltage	$V_{CBO}$	-400	V
Emitter-Base Voltage	$V_{EBO}$	-5.0	V
Collector Current(DC)	$I_C$	-200	mA
Power Dissipation@ $T_A=25^\circ\text{C}$	$P_d$	625	mW
		5.0	mW/°C
Power Dissipation@ $T_C=25^\circ\text{C}$	$P_d$	1.5	W
		12	mW/°C
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	°C/W
Operating & Storage Temperature	$T_j, T_{STG}$	-55~150	°C

# MPSA94

## PNP Silicon High Voltage Transistor

### 625mW



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	.096	.104	2.44	2.64	

**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
<b>OFF CHARACTERISTICS</b>				
Collector–Emitter Breakdown Voltage <sup>(1)</sup> ( $I_C = -1.0\text{ mA}$ , $I_B = 0$ )	$V_{(BR)CEO}$	-400	—	Vdc
Collector–Base Breakdown Voltage ( $I_C = -100\text{ }\mu\text{A}$ , $I_E = 0$ )	$V_{(BR)CBO}$	-400	—	Vdc
Emitter–Base Breakdown Voltage ( $I_E = -100\text{ }\mu\text{A}$ , $I_C = 0$ )	$V_{(BR)EBO}$	-5.0	—	Vdc
Collector Cutoff Current ( $V_{CB} = -300\text{ Vdc}$ , $I_E = 0$ )	$I_{CBO}$	—	-0.1	$\mu\text{A}$
Emitter Cutoff Current ( $V_{EB} = -4.0\text{ Vdc}$ , $I_C = 0$ )	$I_{EBO}$	—	-0.1	$\mu\text{A}$

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

DC Current Gain <sup>(1)</sup> ( $I_C = -1.0\text{ mA}$ , $V_{CE} = -10\text{ Vdc}$ ) ( $I_C = -10\text{ mA}$ , $V_{CE} = -10\text{ Vdc}$ ) ( $I_C = -100\text{ mA}$ , $V_{CE} = -10\text{ Vdc}$ )	$h_{FE}$	70 80 60	300	
Collector–Emitter Saturation Voltage <sup>(1)</sup> ( $I_C = -10\text{ mA}$ , $I_B = -1.0\text{ mA}$ ) ( $I_C = -50\text{ mA}$ , $I_B = -5.0\text{ mA}$ )	$V_{CE(sat)}$	— —	-0.2 -0.3	Vdc
Base–Emitter Saturation Voltage ( $I_C = -10\text{ mA}$ , $I_B = -1.0\text{ mA}$ )	$V_{BE(sat)}$	—	-0.75	Vdc

**SMALL–SIGNAL CHARACTERISTICS**

Output Capacitance ( $V_{CB} = 20\text{ Vdc}$ , $I_E = 0$ , $f = 1.0\text{ MHz}$ )	$C_{obo}$	—	7.0	pF
Input Capacitance ( $V_{EB} = 0.5\text{ Vdc}$ , $I_C = 0$ , $f = 1.0\text{ MHz}$ )	$C_{ibo}$	—	130	pF
Small–Signal Current Gain ( $I_C = 10\text{ mA}$ , $V_{CE} = 10\text{ Vdc}$ , $f = 20\text{ MHz}$ )	$h_{fe}$	1.0	—	—

1. Pulse Test: Pulse Width  $\leq 300\text{ }\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .



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### Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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