MCC

Micro Commercial Components
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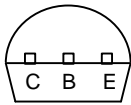
MPSA94

PNP Silicon High Voltage Transistor 625mW

Features

- Through Hole Package
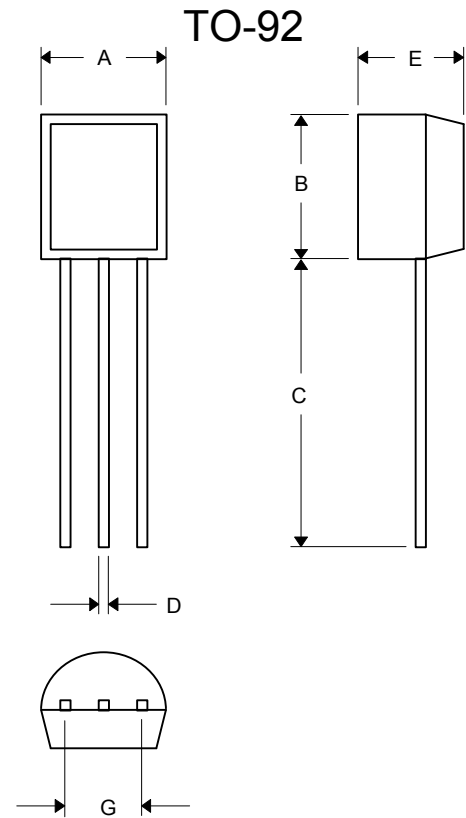- 150°C Junction Temperature

Pin Configuration
Bottom View

C B E

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°C	P_d	625 5.0	mW mW/^{o}C
Power Dissipation@T_C=25°C	P_d	1.5 12	W mW/^{o}C
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	200	^{o}C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	^{o}C/W
Operating & Storage Temperature	T_j, T_{STG}	-55~150	^{o}C

TO-92

DIMENSIONS				
	INCHES		MM	
DIM	MIN	MAX	MIN	MAX	NOTE
A	.175	.185	4.45	4.70	
B	.175	.185	4.46	4.70	
C	.500	---	12.7	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector–Emitter Breakdown Voltage[1] (I_C = -1.0 mAdc, I_B = 0)	$V_{(BR)CEO}$	-400	—	Vdc
Collector–Base Breakdown Voltage (I_C = -100 uAdc, I_E = 0)	$V_{(BR)CBO}$	-400	—	Vdc
Emitter–Base Breakdown Voltage (I_E = -100uAdc, I_C = 0)	$V_{(BR)EBO}$	-5.0	—	Vdc
Collector Cutoff Current (V_{CB} = -300 Vdc, I_E = 0)	I_{CBO}	—	-0.1	µAdc
Emitter Cutoff Current (V_{EB} = -4.0 Vdc, I_C = 0)	I_{EBO}	—	-0.1	µAdc
ON CHARACTERISTICS[1]				
DC Current Gain[1] (I_C = -1.0 mAdc, V_{CE} = -10 Vdc) (I_C = -10 mAdc, V_{CE} = -10 Vdc) (I_C = -100 mAdc, V_{CE} = -10 Vdc)	h_{FE}	70 80 60	300	
Collector–Emitter Saturation Voltage[1] (I_C = -10 mAdc, I_B = -1.0 mAdc) (I_C = -50 mAdc, I_B = -5.0 mAdc)	$V_{CE(sat)}$	— —	-0.2 -0.3	Vdc
Base–Emitter Saturation Voltage (I_C = -10 mAdc, I_B = -1.0 mAdc)	$V_{BE(sat)}$	—	-0.75	Vdc
SMALL–SIGNAL CHARACTERISTICS				
Output Capacitance (V_{CB} = 20 Vdc, I_E = 0, f = 1.0 MHz)	C_{obo}	—	7.0	pF
Input Capacitance (V_{EB} = 0.5 Vdc, I_C = 0, f = 1.0 MHz)	C_{ibo}	—	130	pF
Small–Signal Current Gain (I_C = 10 mAdc, V_{CE} = 10 Vdc, f = 20 MHz)	h_{fe}	1.0	—	—

1. Pulse Test: Pulse Width ≤ 300 µs, Duty Cycle ≤ 2.0%.