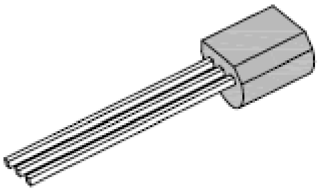
Small Signal General Purpose Transistors (PNP)

Features

- PNP Silicon Epitaxial Transistor for Switching and Amplifier Applications
- RoHS Compliance



TO-92

RoHS Compliant

Mechanical Data

Case:	TO-92, Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	0.18 gram

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	MPSA55	MPSA56	Unit
V_{CEO}	Collector-Emitter Voltage	60	80	V
V_{CBO}	Collector-Base Voltage	60	80	V
V_{EBO}	Emitter-Base Voltage	4.0		V
I_C	Collector Current Continuous	500		mA
P_D	Power Dissipation at T_A=25°C	625		mW
	Derate above 25°C	5.0		mW/° C
P_D	Power Dissipation at T_C=25°C	1.5		W
	Derate above 25°C	12		mW/° C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient Air (Note)	200		° C/W
$R_{\theta JC}$	Thermal Resistance Junction to Case	83.3		° C/W
T_J ,T_{STG}	Operation and Storage Junction Temperature Range	-55 to +150		° C

Note: $R_{\theta JA}$ is measured with the device soldered into a typical printed circuit board.

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

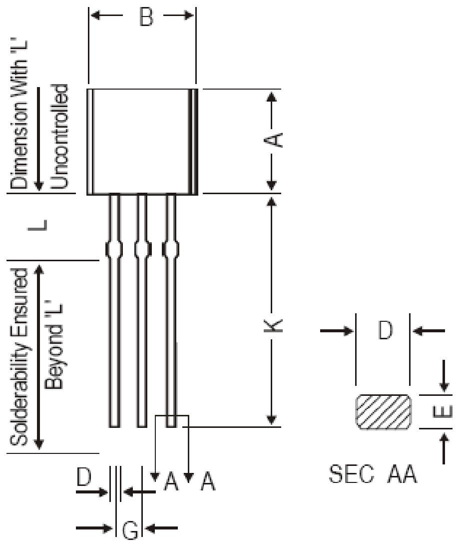
Symbol	Description	MPSA55		MPSA56		Unit	Conditions
		Min.	**Max.**	**Min.**	**Max.**		
$V_{(BR)CEO}$*	Collector-Emitter Breakdown Voltage	60	-	80	-	V	I_C=1mA, I_B=0
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	4.0	-	4.0	-	V	I_E=100μA, I_C=0
I_{CBO}	Collector Cut–Off Current	-	0.1	-	0.1	μA	
		V_{CB}=60V, I_E=0		V_{CB}=80V, I_E=0			
I_{CEO}	Collector Cut–Off Current	-	0.1	-	0.1	μA	V_{CE}=60V, I_B=0
$V_{CE(sat)}$	Collector Emitter Saturation Voltage	-	0.25	-	0.25	V	I_C=100mA, I_B=10mA
$V_{BE(on)}$	Base Emitter On Voltage	-	1.2	-	1.2	V	I_C=100mA, V_{CE}=1V
h_{FE}	D.C. Current Gain	100	-	100	-		V_{CE}=1V, I_C=10mA
		100	-	100	-		V_{CE}=1V, I_C=100mA
f_T**	Current Gain-Bandwidth Product	50	-	50	-	MHz	V_{CE}=1V, I_C=100mA, f=100MHz

*Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%.

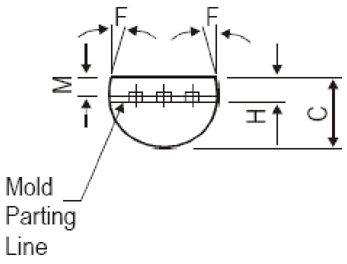
**f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.

Dimensions in mm

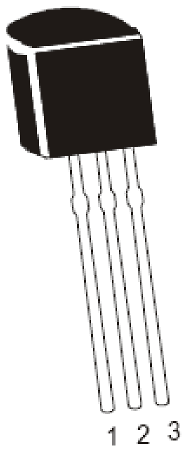
TO-92



DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5 DEG	
G	1.14	1.40
H	1.20	1.40
K	12.70	—
L	1.982	2.082
M	1.03	1.20



PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR



How to contact us:

US HEADQUARTERS
28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162
Tel: (800) TAITRON (800) 824-8766 (661) 257-6060
Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415
Email: taitron@taitroncomponents.com
Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.
BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.
42970 MEXICO
Tel: +52-55-5560-1519
Fax: +52-55-5560-2190

TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA
RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL
Tel: +55-11-5574-7949
Fax: +55-11-5572-0052

TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE
METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA
Tel: +86-21-5424-9942
Fax: +86-21-5424-9931