

## Silicon NPN Power Transistors

BU902

## DESCRIPTION

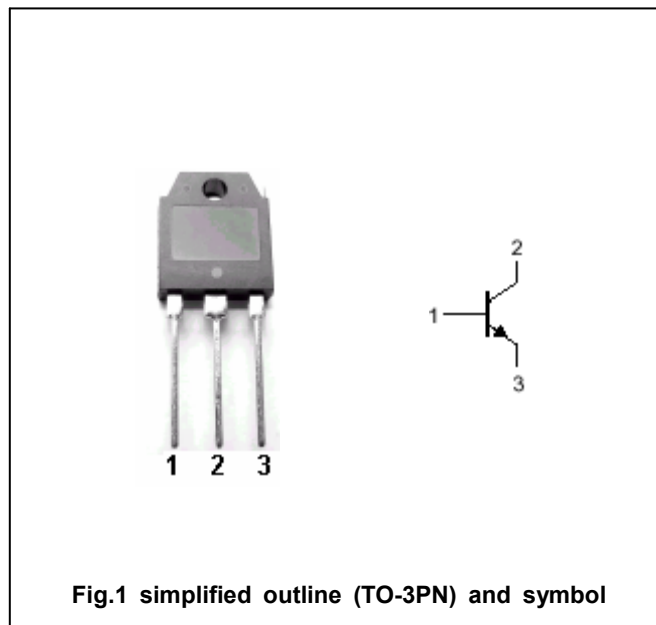
- With TO-3PN package
- High voltage
- High speed switching

## APPLICATIONS

- For color TV horizontal deflection circuits.

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



## Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1100	V
$V_{CEO}$	Collector-emitter voltage	Open base	480	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		8	A
$I_{CM}$	Collector current-peak	$t_p < 5ms$	15	A
$P_T$	Total power dissipation	$T_C = 25^\circ C$	100	W
$T_j$	Junction temperature		150	℃
$T_{stg}$	Storage temperature		-65~150	℃

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction case	1.0	℃/W

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA; I <sub>B</sub> =0;	480			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0;	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4A; I <sub>B</sub> =0.8A			5.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4A; I <sub>B</sub> =0.8A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =1100V; I <sub>E</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	10			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =4A ; V <sub>CE</sub> =5V	5.5			

**BU902**

Technical drawing of a mechanical part showing front, side, and top views with dimensions.

**Front View Dimensions:**

- Overall width: 15.60
- Inner width: 13.50
- Top flange width: 10.00
- Top flange hole diameter: 8.00
- Top flange hole position: 30- $\phi 1.50$
- Top flange hole position: 10- $\phi 3.50$
- Top flange hole position: R0.50
- Top flange hole position: 12.00
- Top flange hole position: 0.60
- Top flange hole position: 10- $\phi 2.05 \pm 0.05$
- Top flange hole position: 3.25
- Top flange hole position: 2.00
- Top flange hole position: 0.00
- Top flange hole position: 2.00

**Side View Dimensions:**

- Overall height: 40.10
- Top flange height: 7.00
- Top flange width: 13.50
- Top flange hole diameter:  $\phi 5.50$
- Top flange hole position: 3.00
- Top flange hole position: 2.00
- Top flange hole position: 1.00
- Top flange hole position: 10.90  $\pm 0.01$
- Top flange hole position: 3.40  $\pm 0.05$
- Top flange hole position: 0.60  $\pm 0.005$
- Top flange hole position: 2.00  $\pm 0.005$
- Top flange hole position: 4.80
- Top flange hole position: 3.00
- Top flange hole position: 17.00

**Top View Dimensions:**

- Overall width: 15.60
- Inner width: 13.50
- Top flange width: 10.00
- Top flange hole diameter: 8.00
- Top flange hole position: 30- $\phi 1.50$
- Top flange hole position: 10- $\phi 3.50$
- Top flange hole position: R0.50
- Top flange hole position: 12.00
- Top flange hole position: 0.60
- Top flange hole position: 10- $\phi 2.05 \pm 0.05$
- Top flange hole position: 3.25
- Top flange hole position: 2.00
- Top flange hole position: 0.00
- Top flange hole position: 2.00