

## Silicon NPN Power Transistors

## 2SC2902

## DESCRIPTION

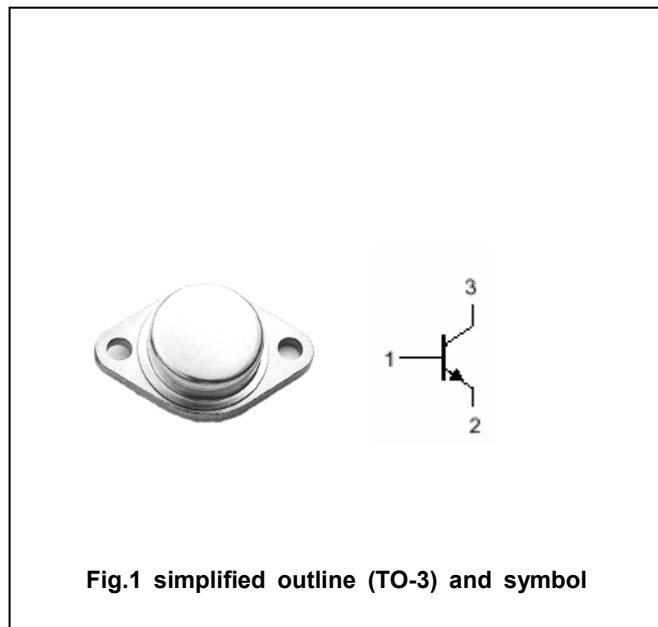
- With TO-3 package
- High voltage ,high speed

## APPLICATIONS

- Converters
- Inverters
- Switching regulators
- Motor controls

## PINNING (See Fig.2)

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Base        |
| 2   | Emitter     |
| 3   | Collector   |

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER                   | CONDITIONS             | MAX     | UNIT             |
|-----------|-----------------------------|------------------------|---------|------------------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter           | 800     | V                |
| $V_{CEO}$ | Collector-emitter voltage   | Open base              | 400     | V                |
| $V_{EBO}$ | Emitter-base voltage        | Open collector         | 9       | V                |
| $I_C$     | Collector current           |                        | 15      | A                |
| $I_{CM}$  | Collector current-Peak      |                        | 30      | A                |
| $P_C$     | Collector power dissipation | $T_C=25^\circ\text{C}$ | 150     | W                |
| $T_j$     | Junction temperature        |                        | 200     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage temperature         |                        | -65~200 | $^\circ\text{C}$ |

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## CHARACTERISTICS

Tj=25°C unless otherwise specified

| SYMBOL         | PARAMETER                            | CONDITIONS                      | MIN | TYP. | MAX | UNIT    |
|----------------|--------------------------------------|---------------------------------|-----|------|-----|---------|
| $V_{CEO(SUS)}$ | Collector-emitter sustaining voltage | $I_C=0.1A$ ; $I_B=0$ ; $L=25mH$ | 400 |      |     | V       |
| $V_{(BR)EBO}$  | Emitter-base breakdown voltage       | $I_E=1mA$ ; $I_C=0$             | 9   |      |     | V       |
| $V_{CEsat}$    | Collector-emitter saturation voltage | $I_C=7.5A$ ; $I_B=2.5A$         |     |      | 1.0 | V       |
| $V_{BEsat}$    | Base-emitter saturation voltage      | $I_C=7.5A$ ; $I_B=2.5A$         |     |      | 1.5 | V       |
| $I_{CBO}$      | Collector cut-off current            | $V_{CB}=640V$ ; $I_E=0$         |     |      | 50  | $\mu A$ |
| $I_{EBO}$      | Emitter cut-off current              | $V_{EB}=9V$ ; $I_C=0$           |     |      | 50  | $\mu A$ |
| $h_{FE}$       | DC current gain                      | $I_C=7.5A$ ; $V_{CE}=5V$        | 10  |      | 35  |         |

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PACKAGE OUTLINE

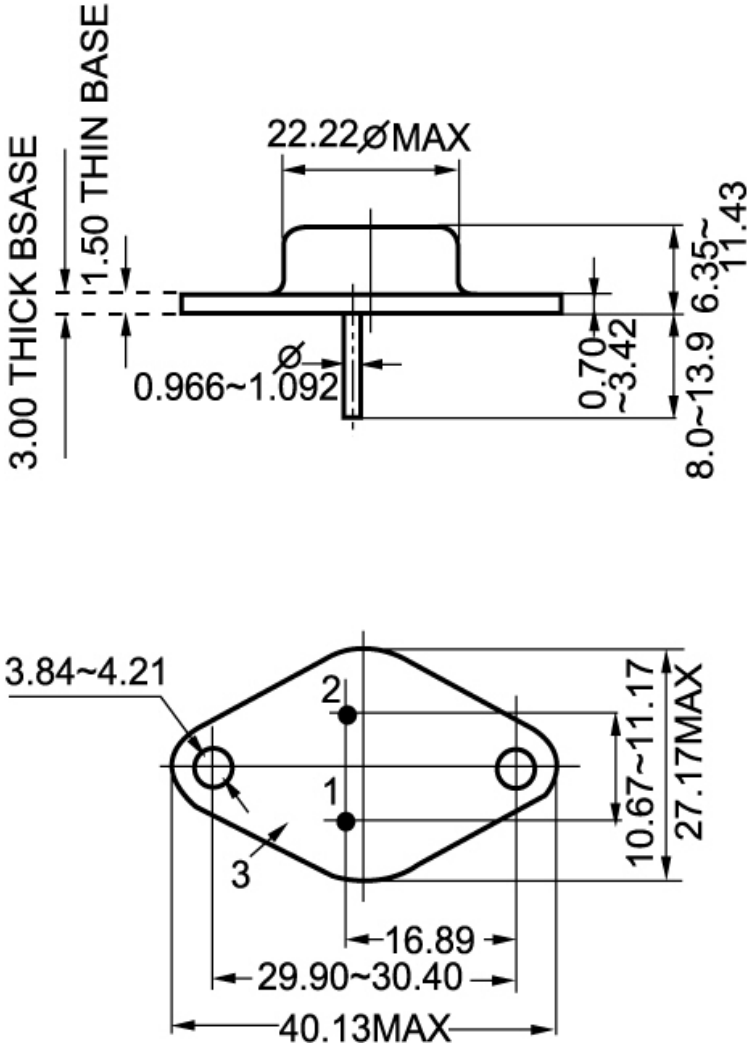


Fig.2 Outline dimensions