

## Silicon PNP Power Transistors

## 2SA740

## DESCRIPTION

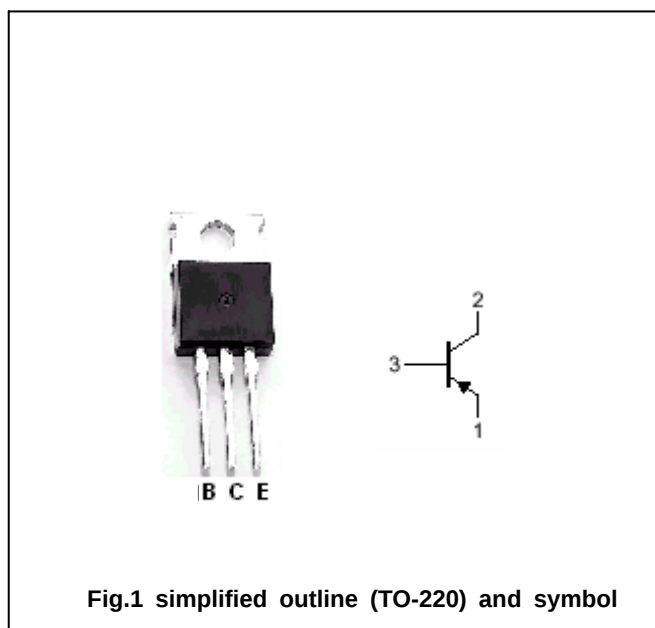
- With TO-220 package
- Complement to type 2SC1448

## APPLICATIONS

- Power amplifier applications
- Vertical output applications

## PINNING

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

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER                   | CONDITIONS     | VALUE   | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter   | -150    | V    |
| $V_{CEO}$ | Collector-emitter voltage   | Open base      | -150    | V    |
| $V_{EBO}$ | Emitter-base voltage        | Open collector | -5      | V    |
| $I_C$     | Collector current           |                | -1.5    | A    |
| $I_E$     | Emitter current             |                | 1.5     | A    |
| $P_C$     | Collector power dissipation | $T_a=25$       | 1.5     | W    |
|           |                             | $T_C=25$       | 25      |      |
| $T_j$     | Junction temperature        |                | 150     |      |
| $T_{stg}$ | Storage temperature         |                | -55~150 |      |

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## CHARACTERISTICS

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

| SYMBOL               | PARAMETER                            | CONDITIONS                                       | MIN  | TYP. | MAX  | UNIT |
|----------------------|--------------------------------------|--------------------------------------------------|------|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =-10mA, I <sub>B</sub> =0         | -150 |      |      | V    |
| V <sub>CEsat</sub>   | Collector-emitter saturation voltage | I <sub>C</sub> =-500mA; I <sub>B</sub> =-50mA    |      |      | -1.5 | V    |
| V <sub>BE</sub>      | Base-emitter on voltage              | I <sub>C</sub> =-500mA; V <sub>CE</sub> =-10V    |      |      | -1.0 | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | V <sub>CB</sub> =-100V; I <sub>E</sub> =0        |      |      | -20  | μ A  |
| I <sub>EBO</sub>     | Emitter cut-off current              | V <sub>EB</sub> =-5V; I <sub>C</sub> =0          |      |      | -10  | μ A  |
| h <sub>FE</sub>      | DC current gain                      | I <sub>C</sub> =-500mA; V <sub>CE</sub> =-10V    | 40   |      | 140  |      |
| C <sub>OB</sub>      | Output capacitance                   | I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz |      | 90   |      | pF   |
| f <sub>T</sub>       | Transition frequency                 | I <sub>C</sub> =-500mA; V <sub>CE</sub> =-10V    |      | 8    |      | MHz  |

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**Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)**