

## Inchange Semiconductor

## Product Specification

### Silicon PNP Power Transistors

### 2SA766

#### DESCRIPTION

- With TO-66 package
- High power dissipation
- Complement to type 2SC1450

#### APPLICATIONS

- Line-operated vertical deflection output
- Medium power amplifier

#### PINNING(see Fig.2)

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



Fig.1 simplified outline (TO-66) and symbol

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

| 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           |                             | -0.4    | A                |
| $I_{CM}$  | Collector current-peak      |                             | -1.2    | A                |
| $P_C$     | Collector power dissipation | $T_c \leq 80^\circ\text{C}$ | 20      | W                |
| $T_j$     | Junction temperature        |                             | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage temperature         |                             | -65~150 | $^\circ\text{C}$ |

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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> =-0.2A ; L=25mH, R <sub>BE</sub> =5k Ω | -150 |      |      | V    |
| V <sub>(BR)EBO</sub>  | Emitter-base breakdown voltage       | I <sub>E</sub> =-1mA ; I <sub>C</sub> =0              | -5   |      |      | V    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A            |      |      | -1.0 | V    |
| V <sub>BE-1</sub>     | Base-emitter saturation voltage      | I <sub>C</sub> =-0.1A ; V <sub>CE</sub> =-5V          |      |      | -0.8 | V    |
| V <sub>BE-2</sub>     | Base-emitter saturation voltage      | I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V          |      |      | -1.0 | V    |
| I <sub>CBO</sub>      | Collector cut-off current            | V <sub>CB</sub> =-60V; I <sub>E</sub> =0              |      |      | -30  | μ A  |
| h <sub>FE-1</sub>     | DC current gain                      | I <sub>C</sub> =-0.1A ; V <sub>CE</sub> =-5V          | 35   |      | 150  |      |
| h <sub>FE-2</sub>     | DC current gain                      | I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V          | 35   |      |      |      |
| f <sub>T</sub>        | Transition frequency                 | I <sub>E</sub> =0.1A ; V <sub>CB</sub> =-10V          |      | 15   |      | MHz  |

