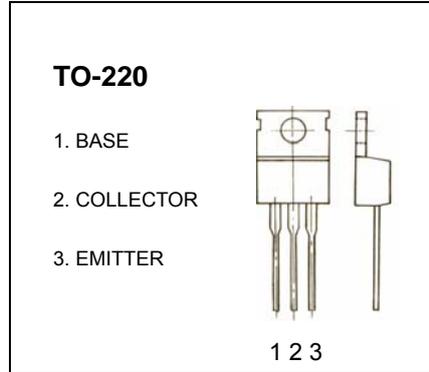


# 深圳市晶泰源电子有限公司

## 2SA940 TRANSISTOR (PNP)

### FEATURES

- Wide safe Operating Area.
- Complementary to 2SC2703



### MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol    | Parameter                     | Value   | Units              |
|-----------|-------------------------------|---------|--------------------|
| $V_{CB0}$ | Collector-Base Voltage        | -150    | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage     | -150    | V                  |
| $V_{EBO}$ | Emitter-Base Voltage          | -5      | V                  |
| $I_C$     | Collector Current -Continuous | -1.5    | A                  |
| $P_C$     | Collector Power Dissipation   | 1.5     | W                  |
| $T_j$     | Junction Temperature          | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature Range     | -55-150 | $^{\circ}\text{C}$ |

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter                            | Symbol        | Test conditions  | MIN   | TYP | MAX   | UNIT          |
|--------------------------------------|---------------|--|-------|-----|-------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}$ , $I_E = 0$                    | -150  |     |       | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1\text{mA}$ , $I_B = 0$                        | -150  |     |       | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}$ , $I_C = 0$                    | -5    |     |       | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -120\text{V}$ , $I_E = 0$                    |       |     | -10   | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5\text{V}$ , $I_C = 0$                      |       |     | -10   | $\mu\text{A}$ |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -10\text{V}$ , $I_C = -0.5\text{A}$          | 40    |     | 140   |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -0.5\text{A}$ , $I_B = -50\text{mA}$            |       |     | -1.5  | V             |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE} = -10\text{V}$ , $I_C = -0.5\text{A}$          | -0.65 |     | -0.85 | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -10\text{V}$ , $I_C = -0.5\text{A}$          |       | 4   |       | MHz           |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$ |       | 55  |       | pF            |