



S9015 TRANSISTOR (PNP)

FEATURES

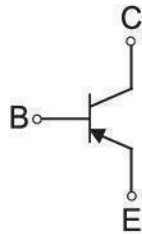
- High Total Power Dissipation.($P_C=0.45W$)
- High h_{FE} and Good Linearity
- Complementary to S9014

TO-92

- 1.EMITTER
- 2. BASE
- 3. COLLECTOR



Equivalent Circuit



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

| Symbol | Parameter | Value | Unit |
|-----------------|---|----------|-----------------|
| V_{CBO} | Collector-Base Voltage | -50 | V |
| V_{CEO} | Collector-Emitter Voltage | -45 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current -Continuous | -0.1 | A |
| P_D | Collector Power Dissipation | 450 | mW |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient | 277.7 | $^{\circ}C / W$ |
| T_j | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature | -55~+150 | $^{\circ}C$ |

$T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|-------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}, I_E = 0$ | -50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$ | -45 | | | 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} | $V_{CB} = -50\text{V}, I_E = 0$ | | | -0.05 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5\text{V}, I_C = 0$ | | | -0.05 | μA |
| DC current gain | h_{FE} | $V_{CE} = -5\text{V}, I_C = -1\text{mA}$ | 60 | | 1000 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$ | | | -0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$ | | | -1 | V |
| Transition frequency | f_T | $V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 30\text{MHz}$ | 100 | | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | A | B | C | D |
|-------|--------|---------|---------|----------|
| Range | 60-150 | 100-300 | 200-600 | 400-1000 |

