

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

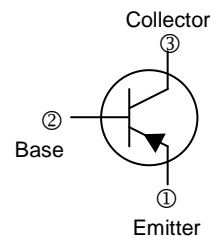
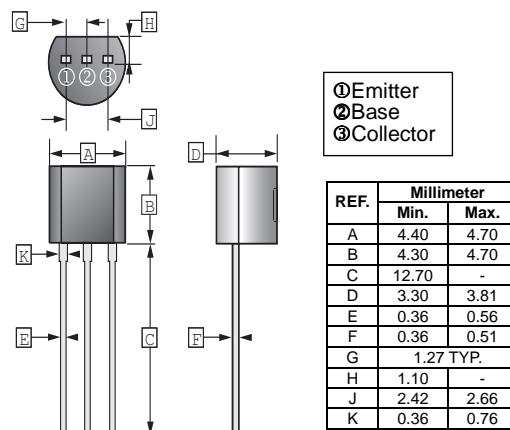
FEATURES

- High Voltage.

CLASSIFICATION OF h_{FE} (2)

| Product-Rank | A92-A | A92-B1 | A92-B2 | A92-C |
|--------------|--------|---------|---------|---------|
| Range | 80~100 | 100~150 | 150~200 | 200~250 |

TO-2



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

| Parameter | Symbol | Rating | Unit |
|---------------------------------------------|-----------------|--------------|------------------------------|
| Collector to Base Voltage | V_{CBO} | -300 | V |
| Collector to Emitter Voltage | V_{CEO} | -300 | V |
| Emitter to Base Voltage | V_{EBO} | -5 | V |
| Collector Current - Continuous | I_C | -500 | mA |
| Collector Power Dissipation | P_C | 625 | mW |
| Junction, Storage Temperature | T_J, T_{STG} | 150, -55~150 | $^\circ\text{C}$ |
| Thermal Resistance From Junction to Ambient | $R_{\theta JA}$ | 200 | $^\circ\text{C} / \text{mW}$ |
| Thermal Resistance From Junction to Case | $R_{\theta JC}$ | 83.3 | $^\circ\text{C} / \text{mW}$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|-----------------------------------------|---------------|------|------|-------|---------------|--------------------------------------------------------------|
| Collector to Base Breakdown Voltage | $V_{(BR)CBO}$ | -300 | - | - | V | $I_C = -100\mu\text{A}, I_E = 0$ |
| Collector to Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -300 | - | - | V | $I_C = -1\text{mA}, I_B = 0$ |
| Emitter to Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | - | - | V | $I_E = -100\mu\text{A}, I_C = 0$ |
| Collector Cut-Off Current | I_{CBO} | - | - | -0.25 | μA | $V_{CB} = -200\text{V}, I_E = 0$ |
| Emitter Cut-Off Current | I_{EBO} | - | - | -0.1 | μA | $V_{EB} = -5\text{V}, I_C = 0$ |
| DC Current Gain | $h_{FE(1)}$ | 60 | - | - | | $V_{CE} = -10\text{V}, I_C = -1\text{mA}$ |
| | $h_{FE(2)}$ | 80 | - | 250 | | $V_{CE} = -10\text{V}, I_C = -10\text{mA}$ |
| | $h_{FE(3)}$ | 60 | - | - | | $V_{CE} = -10\text{V}, I_C = -80\text{mA}$ |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | - | - | -0.2 | V | $I_C = -20\text{mA}, I_B = -2\text{mA}$ |
| Base to Emitter Voltage | $V_{BE(sat)}$ | - | - | -0.9 | V | $I_C = -20\text{mA}, I_B = -2\text{mA}$ |
| Transition Frequency | f_T | 50 | - | - | MHz | $V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 30\text{MHz}$ |

CHARACTERISTIC CURVES

