

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

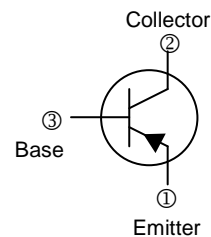
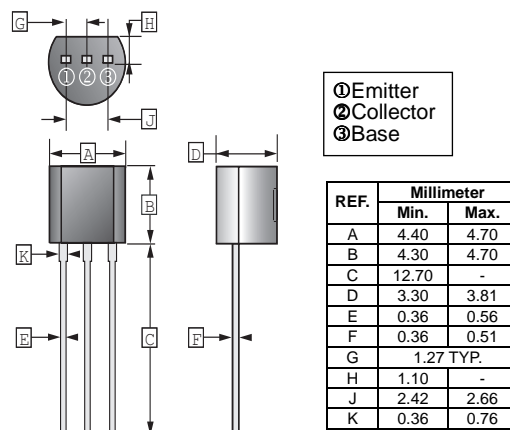
FEATURES

- Power Dissipation

TO-92

CLASSIFICATION OF h_{FE}

| Product-Rank | A1015-O | A1015-Y | A1015-GR |
|--------------|---------|---------|----------|
| Range | 70~140 | 120~240 | 200~400 |



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

| Parameter | Symbol | Rating | Unit |
|--------------------------------|----------------|--------------|------------------|
| Collector to Base Voltage | V_{CBO} | -50 | V |
| Collector to Emitter Voltage | V_{CEO} | -50 | V |
| Emitter to Base Voltage | V_{EBO} | -5 | V |
| Collector Current - Continuous | I_C | -150 | mA |
| Collector Power Dissipation | P_D | 400 | mW |
| Junction, Storage Temperature | T_J, T_{STG} | 125, -55~125 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|---|---------------|------|------|------|---------------|---|
| Collector to Base Breakdown Voltage | $V_{(BR)CBO}$ | -50 | - | - | V | $I_C = -100\mu\text{A}, I_E = 0$ |
| Collector to Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -50 | - | - | V | $I_C = -0.1\text{mA}, I_B = 0$ |
| 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} | - | - | -0.1 | μA | $V_{CB} = -50\text{V}, I_E = 0$ |
| Collector Cut-Off Current | I_{CEO} | - | - | -0.1 | μA | $V_{CE} = -50\text{V}, I_B = 0$ |
| Emitter Cut-Off Current | I_{EBO} | - | - | -0.1 | μA | $V_{EB} = -5\text{V}, I_C = 0$ |
| DC Current Gain | h_{FE} | 70 | - | 400 | - | $V_{CE} = -6\text{V}, I_C = -2\text{mA}$ |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | - | - | -0.3 | V | $I_C = -100\text{mA}, I_B = -10\text{mA}$ |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | - | - | -1.1 | V | $I_C = -100\text{mA}, I_B = -10\text{mA}$ |
| Transition Frequency | f_T | 80 | - | - | MHz | $V_{CE} = -10\text{V}, I_C = -1\text{mA}, f = 30\text{MHz}$ |
| Collector Output Capacitance | C_{ob} | - | - | 7 | pF | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ |
| Noise Figure | NF | - | - | 6 | dB | $V_{CE} = -6\text{V}, I_C = -0.1\text{mA}, f = 1\text{KHz}, R_G = 10\text{K}$ |

CHARACTERISTIC CURVES

