

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

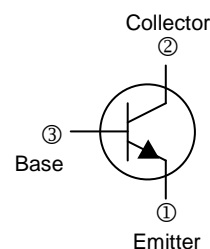
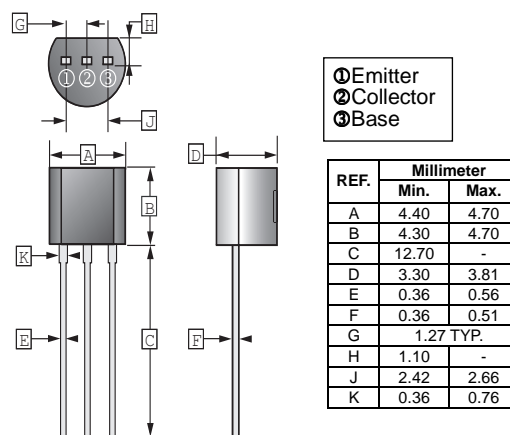
FEATURES

- High DC Current Gain
- Complementary to 2SA950

CLASSIFICATION OF h_{FE}

| Product-Rank | 2SC2120-O | 2SC2120-Y |
|--------------|-----------|-----------|
| Range | 100~200 | 160~320 |

TO-92



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

| Parameter | Symbol | Rating | Unit |
|---|-----------------|--------------|-----------------------------|
| Collector to Base Voltage | V_{CB0} | 35 | V |
| Collector to Emitter Voltage | V_{CE0} | 30 | V |
| Emitter to Base Voltage | V_{EB0} | 5 | V |
| Collector Current - Continuous | I_C | 0.8 | A |
| Collector Power Dissipation | P_C | 0.6 | W |
| Thermal Resistance From Junction to Ambient | $R_{\theta JA}$ | 208 | $^\circ\text{C} / \text{W}$ |
| Junction, Storage Temperature | T_J, T_{STG} | 150, -55~150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|---|---------------|------|------|------|---------------|---|
| Collector to Base Breakdown Voltage | $V_{(BR)CB0}$ | 35 | - | - | V | $I_C=0.1\text{mA}, I_E=0$ |
| Collector to Emitter Breakdown Voltage | $V_{(BR)CE0}$ | 30 | - | - | V | $I_C=10\text{mA}, I_B=0$ |
| Emitter to Base Breakdown Voltage | $V_{(BR)EB0}$ | 5 | - | - | V | $I_E=0.1\text{mA}, I_C=0$ |
| Collector Cut - Off Current | I_{CB0} | - | - | 0.1 | μA | $V_{CB}=35\text{V}, I_E=0$ |
| Collector Cut - Off Current | I_{CE0} | - | - | 0.1 | μA | $V_{CE}=25\text{V}, I_B=0$ |
| Emitter Cut - Off Current | I_{EB0} | - | - | 0.1 | μA | $V_{EB}=5\text{V}, I_C=0$ |
| DC Current Gain | h_{FE} | 100 | - | 320 | | $V_{CE}=1\text{V}, I_C=100\text{mA}$ |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | - | - | 0.5 | V | $I_C=500\text{mA}, I_B=20\text{mA}$ |
| Base to Emitter voltage | V_{BE} | - | - | 0.8 | V | $V_{CE}=1\text{V}, I_C=10\text{mA}$ |
| Collector Output Capacitance | C_{ob} | - | - | 13 | pF | $V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$ |
| Transition Frequency | f_T | 100 | - | - | MHz | $V_{CE}=5\text{V}, I_C=10\text{mA}$ |

CHARACTERISTIC CURVES

