

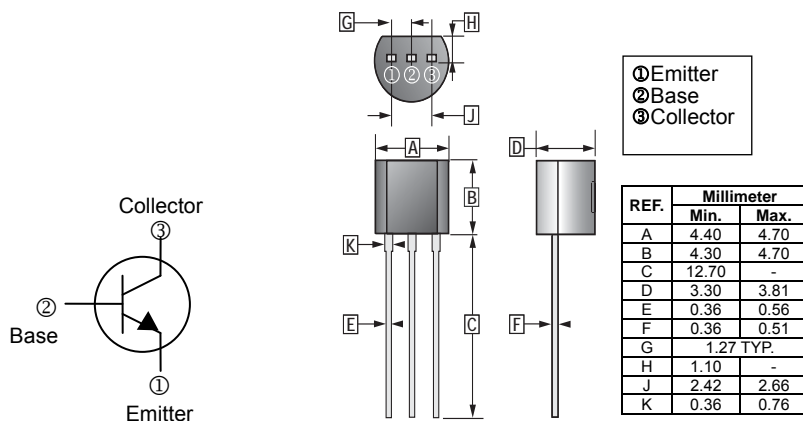
RoHS Compliant Product

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

FEATURES

- High Voltage : $V_{CE0} = 100V$
- Gain of 20 @ $I_C = 0.5A$

TO-92



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

| Parameter | Symbol | Rating | Unit |
|--------------------------------|----------------|--------------|------------|
| Collector to Base Voltage | 2N6716 | 60 | V |
| | 2N6717 | 80 | |
| | 2N6718 | 100 | |
| Collector to Emitter Voltage | 2N6716 | 60 | V |
| | 2N6717 | 80 | |
| | 2N6718 | 100 | |
| Emitter to Base Voltage | V_{EBO} | 5 | V |
| Collector Current - Continuous | I_C | 1 | A |
| Collector Power Dissipation | P_D | 1 | W |
| Junction, Storage Temperature | T_J, T_{STG} | 150, -55~150 | $^\circ C$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--|---------------|------|------|------|---------|------------------------|
| Collector to Base Breakdown Voltage | 2N6716 | 60 | - | - | V | $I_C=100\mu A, I_E=0$ |
| | 2N6717 | 80 | - | - | | |
| | 2N6718 | 100 | - | - | | |
| Collector to Emitter Breakdown Voltage | 2N6716 | 60 | - | - | V | $I_C=1mA, I_B=0$ |
| | 2N6717 | 80 | - | - | | |
| | 2N6718 | 100 | - | - | | |
| Emitter to Base Breakdown Voltage | $V_{(BR)EBO}$ | 5 | - | - | V | $I_E=1mA, I_C=0$ |
| Collector Cut-Off Current | 2N6716 | - | - | 1 | μA | $V_{CB}=60V, I_E=0$ |
| | 2N6717 | - | - | | | $V_{CB}=80V, I_E=0$ |
| | 2N6718 | - | - | | | $V_{CB}=100V, I_E=0$ |
| Emitter Cut-Off Current | 2N6716 | - | - | 1 | μA | $V_{EB}=5V, I_C=0$ |
| | 2N6717 | - | - | | | |
| | 2N6718 | - | - | | | |
| DC Current Gain | $h_{FE(1)}^*$ | 80 | - | - | | $V_{CE}=1V, I_C=50mA$ |
| | $h_{FE(2)}^*$ | 50 | - | 250 | | $V_{CE}=1V, I_C=250mA$ |
| | $h_{FE(3)}^*$ | 20 | - | - | | $V_{CE}=1V, I_C=500mA$ |

| | | | | | | |
|---|-----------------|----|---|------|-----|------------------------|
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ * | - | - | 0.5 | V | $I_C=250mA, I_B=10mA$ |
| | | - | - | 0.35 | | $I_C=250mA, I_B=25mA$ |
| Base to Emitter Turn-on Voltage | $V_{BE(on)}$ * | - | - | 1.2 | V | $V_{CE}=1V, I_C=250mA$ |
| Collector to Base Capacitance | C_{CB} | - | - | 30 | pF | $V_{CE}=10V, f=1MHz$ |
| Transition Frequency | f_T | 50 | - | 500 | MHz | $V_{CE}=10V, I_C=50mA$ |

*Pulse test.

CHARACTERISTIC CURVE

