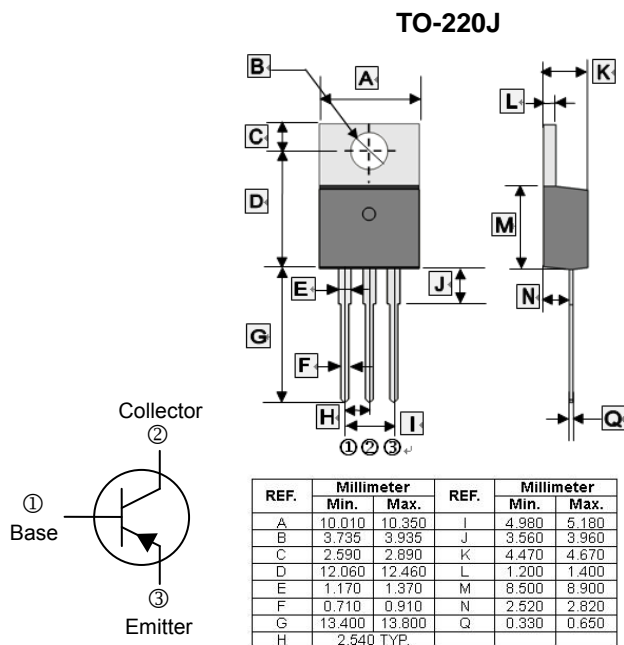


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

- Medium Power Linear Switching Applications



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

| Parameter | Symbol | Ratings | | Unit |
|-------------------------------|-----------------|--------------|--------|-------------------------------|
| | | TIP32 | TIP32C | |
| Collector - Base Voltage | V_{CBO} | -40 | -100 | V |
| Collector - Emitter Voltage | V_{CEO} | -40 | -100 | V |
| Emitter - Base Voltage | V_{EBO} | -5 | | V |
| Collector Current -Continuous | I_C | -3 | | A |
| Collector Power Dissipation | P_C | 2 | | W |
| Maximum Junction to Ambient | $R_{\theta JA}$ | 62.5 | | $^{\circ}\text{C} / \text{W}$ |
| Junction, Storage Temperature | T_J, T_{STG} | 150, -55~150 | | $^{\circ}\text{C}$ |

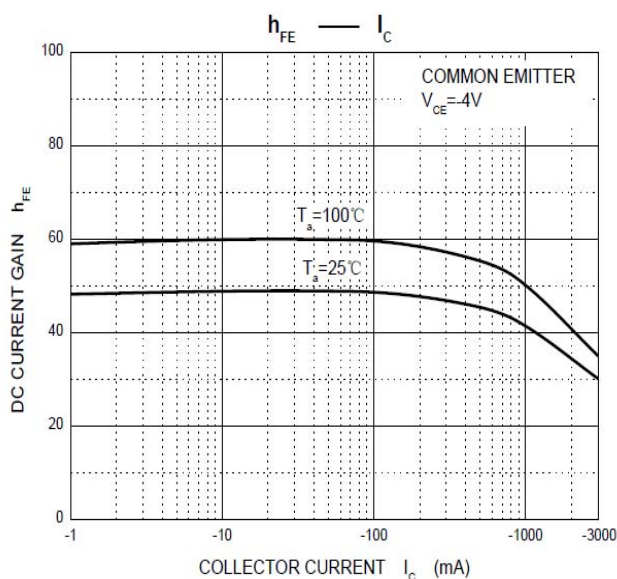
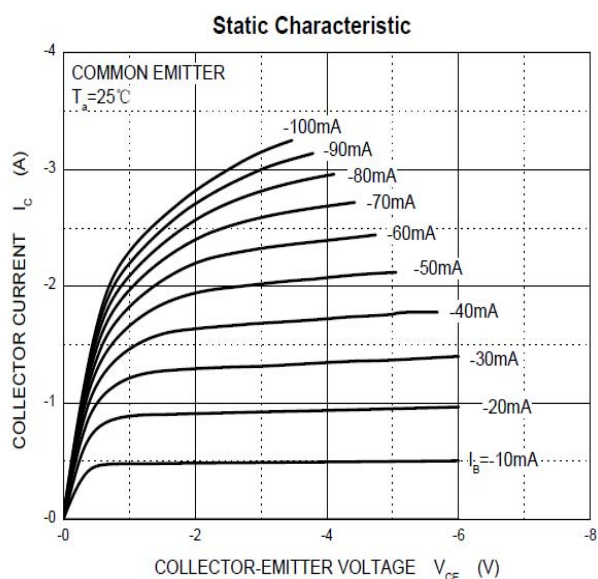
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--|---------------|------|------|------|---------------|--|
| Collector-Base Breakdown Voltage | TIP32 | -40 | - | - | V | $I_C = -1\text{mA}, I_E = 0$ |
| | TIP32C | -100 | - | - | | |
| Collector-Emitter Breakdown Voltage ¹ | TIP32 | -40 | - | - | V | $I_C = -30\text{mA}, I_B = 0$ |
| | TIP32C | -100 | - | - | | |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | - | - | V | $I_E = -1\text{mA}, I_C = 0$ |
| Collector Cut-Off Current | TIP32 | - | - | -200 | μA | $V_{CB} = -40\text{V}, I_E = 0$ |
| | TIP32C | | | | | $V_{CB} = -100\text{V}, I_E = 0$ |
| Collector Cut-Off Current | TIP32 | - | - | -0.3 | mA | $V_{CE} = -30\text{V}, I_B = 0$ |
| | TIP32C | | | | | $V_{CE} = -60\text{V}, I_B = 0$ |
| Emitter Cut-Off Current | I_{EBO} | - | - | -1 | mA | $V_{EB} = -5\text{V}, I_C = 0$ |
| DC Current Gain | h_{FE} | 25 | - | - | | $V_{CE} = -4\text{V}, I_C = -1\text{A}$ |
| | | 15 | - | 75 | | $V_{CE} = -4\text{V}, I_C = -3\text{A}$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | - | - | -1.2 | V | $I_C = -3\text{A}, I_B = -0.375\text{A}$ |
| Base-Emitter Voltage | V_{BE} | - | - | -1.8 | V | $V_{CE} = -4\text{V}, I_C = -3\text{A}$ |
| Transition Frequency | f_T | 3 | - | - | MHz | $V_{CE} = -10\text{V}, I_C = -0.5\text{A}$ |

Notes :

1. Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

CHARACTERISTIC CURVE



CHARACTERISTIC CURVE

