

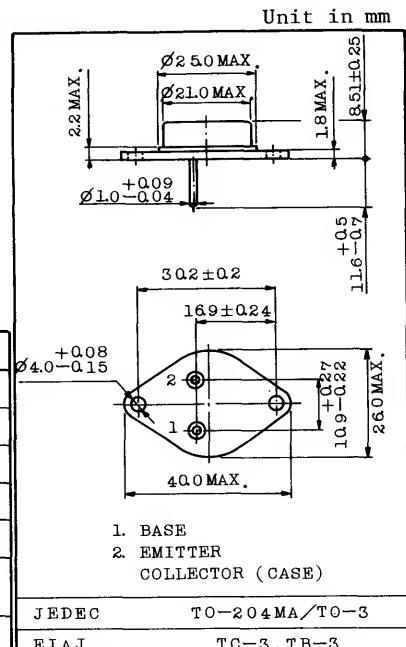
GENERAL PURPOSE POWER TRANSISTOR.
POWER REGULATOR, SWITCHING AND SOLENOID DRIVES
APPLICATIONS.

FEATURES:

- . High Gain at High Current
- . Low Saturation Voltage : $V_{CE}(\text{sat})=0.8V$ (Max.)
@ $I_C=5A$, $I_B=0.5A$
- . Excellent Area of Safe Operatings

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--|---------------|---------|---------------------------|
| * Collector-Base Voltage | V_{CBO} | 80 | V |
| * Collector-Emitter Voltage | V_{CEO} | 60 | V |
| * Emitter-Base Voltage | V_{EBO} | 7 | V |
| * Collector Current | I_C | 10 | A |
| * Base Current | I_B | 4 | A |
| * Collector Power Dissipation ($T_c=25^\circ\text{C}$) | P_C | 150 | W |
| * Thermal Resistance | θ_{jc} | 1.17 | $^\circ\text{C}/\text{W}$ |
| * Junction Temperature | T_j | 200 | $^\circ\text{C}$ |
| * Storage Temperature Range | T_{stg} | -65~200 | $^\circ\text{C}$ |



Weight : 12.6g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT | |
|---|-----------------------|--|-----------------------|------|------|------|---|
| * Collector Cut-off Current | I_{CEX} | $V_{CE}=80V$, $V_{BE}=-1.5V$ | - | - | 1 | mA | |
| * Collector Cut-off Current | I_{CEX} | $V_{CE}=60V$, $V_{BE}=-1.5V$ $T_c=150^\circ\text{C}$ | - | - | 10 | mA | |
| * Emitter Cut-off Current | I_{EBO} | $V_{EB}=7V$, $I_C=0$ | - | - | 5 | mA | |
| * Collector-Emitter Sustaining Voltage | $V_{CEO}(\text{SUS})$ | ** $I_C=200\text{mA}$, $I_B=0$ | 60 | - | - | V | |
| * DC Current Gain | h_{FE} | $V_{CE}=2V$, $I_C=1A$ | 50 | - | 150 | | |
| | | $V_{CE}=2V$, $I_C=3A$ | 30 | - | - | | |
| * Base-Emitter Voltage | V_{BE} | $V_{CE}=2V$, $I_C=3A$ | - | - | 1.5 | V | |
| Saturation Voltage | Collector-Emitter | $V_{CE}(\text{sat})$ | $I_C=5A$, $I_B=0.5A$ | - | - | 0.8 | V |
| | Base-Emitter | $V_{BE}(\text{sat})$ | $I_C=5A$, $I_B=0.5A$ | - | - | 1.5 | V |
| Small Signal Forward Current Transfer Ratio | $ h_{fe} $ | $V_{CE}=10V$, $I_C=0.5A$ $f=1\text{MHz}$ | 4 | - | - | | |

* In accordance with JEDEC registration data.

** The sustaining voltage $V_{CEO}(\text{SUS})$ MUST NOT be measured on a curve tracer.

2N3715

