

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL MOS TYPE

GT80J101

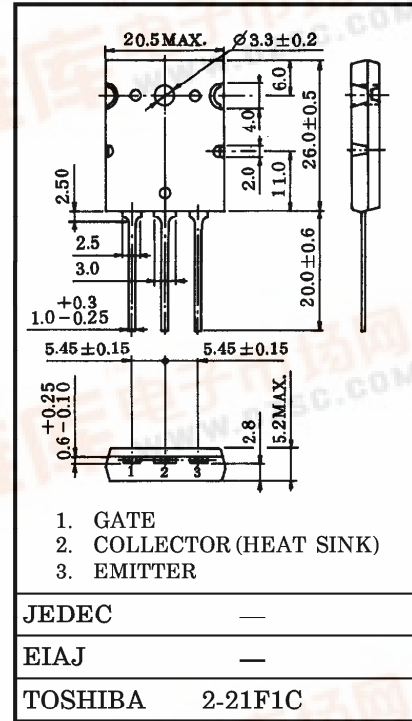
Unit in mm

HIGH POWER SWITCHING APPLICATIONS.

- High Input Impedance
- High Speed : $t_f = 0.40 \mu s$ (Max.)
- Low Saturation Voltage : $V_{CE(sat)} = 3.5V$ (Max.)
- Enhancement-Mode

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|----------|------------|
| Collector-Emitter Voltage | V_{CES} | 600 | V |
| Gate-Emitter Voltage | V_{GES} | ± 20 | V |
| Collector Current | DC | I_C | 80 |
| | 1ms | I_{CP} | 160 |
| Collector Power Dissipation ($T_c = 25^\circ C$) | P_C | 200 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |
| Screw Torque | — | 0.8 | N·m |



Weight : 9.75g

ELECTRICAL CHARACTERISTIC ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|------------------|--------------------------------------|------|------|-----------|--------------|
| Gate Leakage Current | I_{GES} | $V_{GE} = \pm 20V, V_{CE} = 0$ | — | — | ± 500 | nA |
| Collector Cut-Off Current | I_{CES} | $V_{CE} = 600V, V_{GE} = 0$ | — | — | 1.0 | mA |
| Gate-Emitter Cut-off Voltage | $V_{GE(OFF)}$ | $I_C = 80mA, V_{CE} = 5V$ | 3.0 | — | 6.0 | V |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}(1)$ | $I_C = 10A, V_{GE} = 15V$ | — | — | 2.0 | V |
| | $V_{CE(sat)}(2)$ | $I_C = 80A, V_{GE} = 15V$ | — | 2.5 | 3.5 | |
| Input Capacitance | C_{ies} | $V_{CE} = 10V, V_{GE} = 0, f = 1MHz$ | — | 5500 | — | pF |
| Switching Time | Rise Time | | — | 0.3 | 0.6 | μs |
| | Turn-on Time | | — | 0.5 | 0.8 | |
| | Fall Time | | — | 0.25 | 0.40 | |
| | Turn-off Time | | — | 0.7 | 1.0 | |
| Thermal Resistance | $R_{th(j-c)}$ | | — | — | 0.625 | $^\circ C/W$ |

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