

**TOSHIBA****GT80J101**

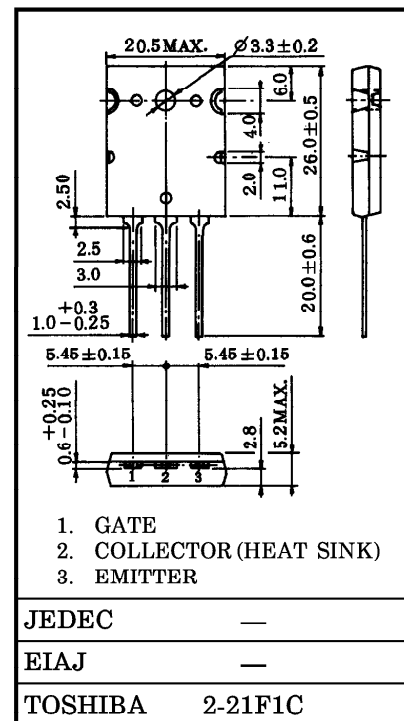
TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL MOS TYPE

**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



Weight : 9.75g

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	$V_{CES}$	600	V
Gate-Emitter Voltage	$V_{GES}$	$\pm 20$	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	$T_{stg}$	$-55 \sim 150$	$^\circ C$
Screw Torque	—	0.8	N · m

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	$I_{GES}$	$V_{GE} = \pm 20V, V_{CE} = 0$	—	—	$\pm 500$	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	$t_r$	—	0.3	0.6	$\mu s$
	Turn-on Time	$t_{on}$	—	0.5	0.8	
	Fall Time	$t_f$	—	0.25	0.40	
	Turn-off Time	$t_{off}$	—	0.7	1.0	
Thermal Resistance	$R_{th(j-c)}$		—	—	0.625	$^\circ C/W$

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