

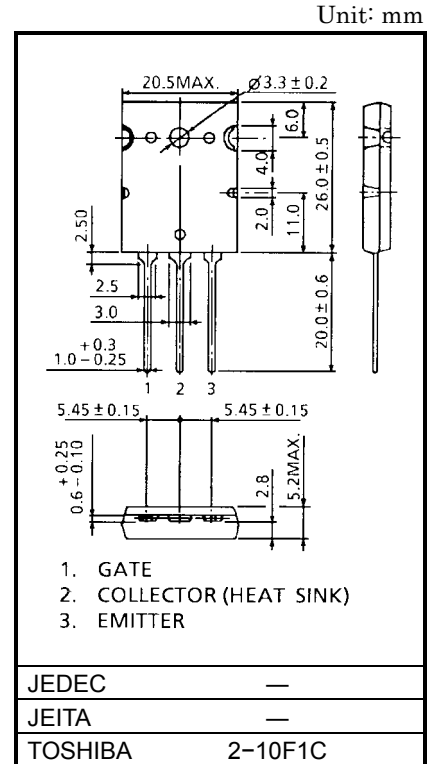
# GT80J101

## HIGH POWER SWITCHING APPLICATIONS

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

## MAXIMUM RATINGS (Ta = 25°C)

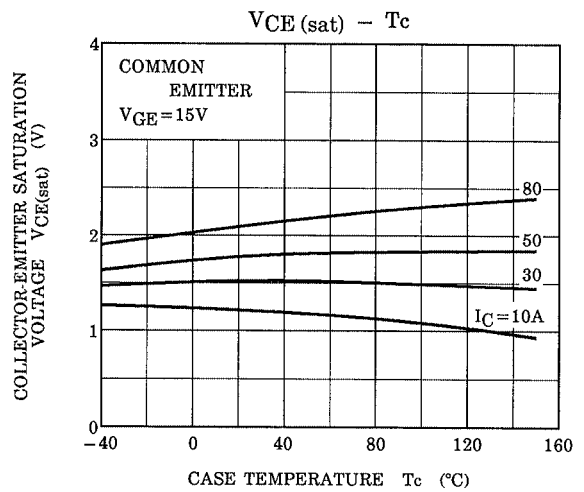
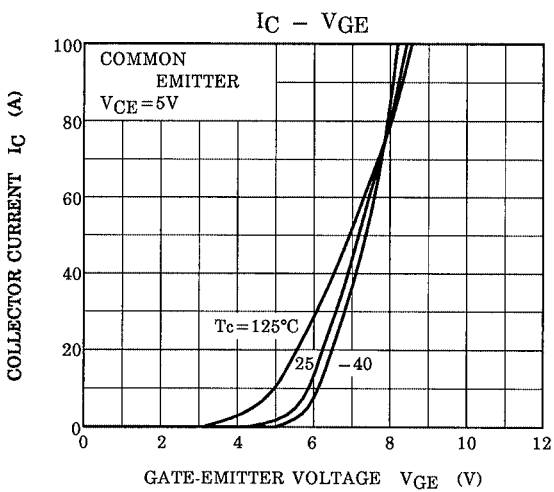
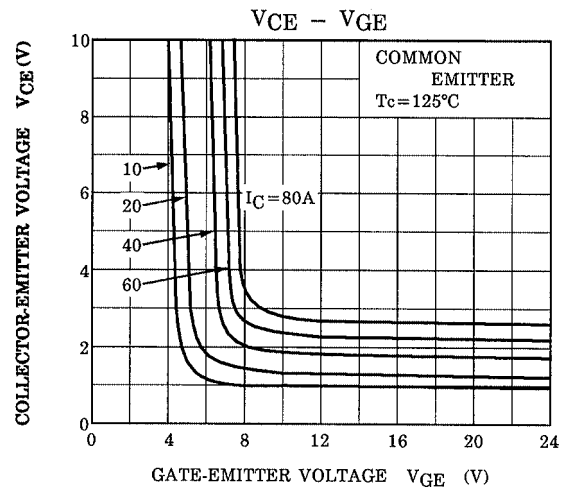
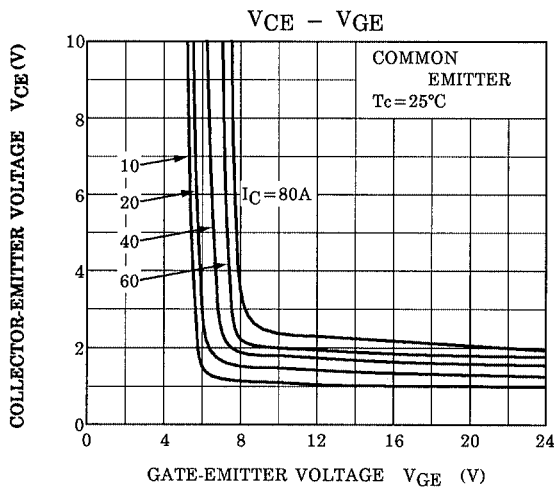
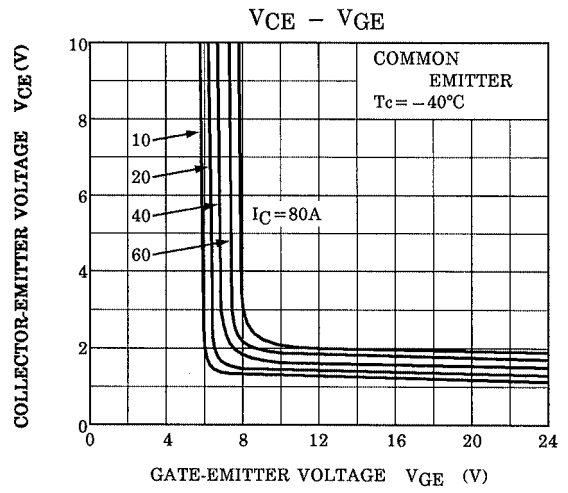
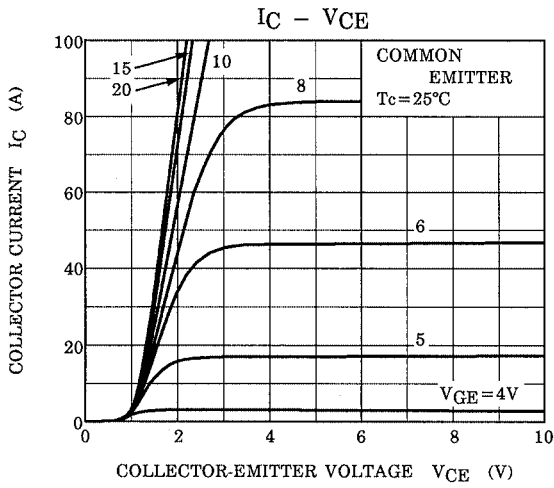
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	$V_{CES}$	600	V
Gate-Emitter Voltage	$V_{GES}$	±20	V
Collector Current	DC	$I_C$	80
	1ms	$I_{CP}$	160
Collector Power Dissipation (Tc = 25°C)	$P_C$	200	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C
Screw Torque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

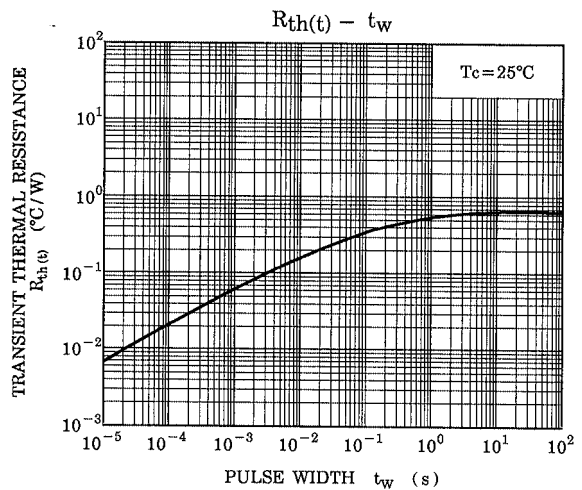
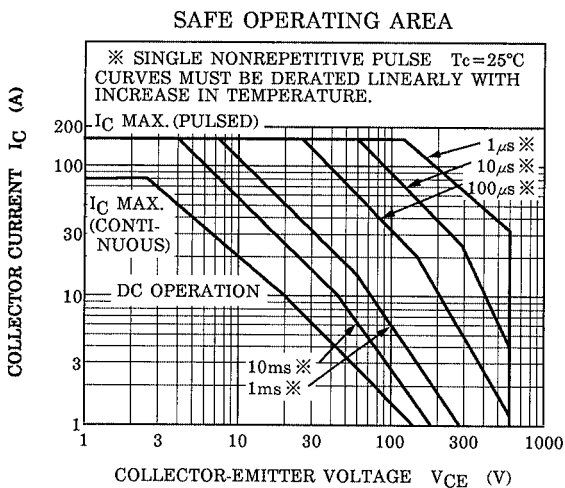
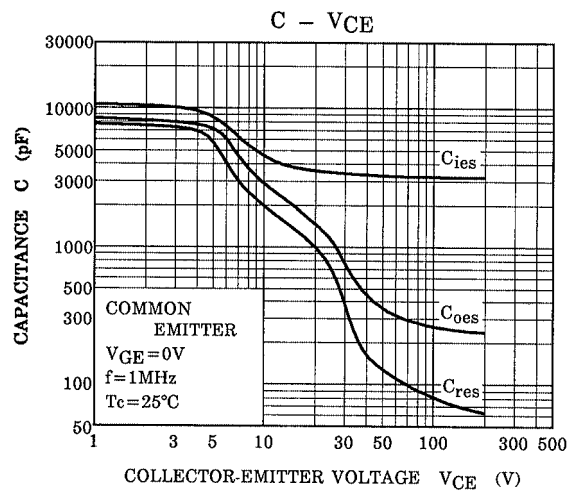
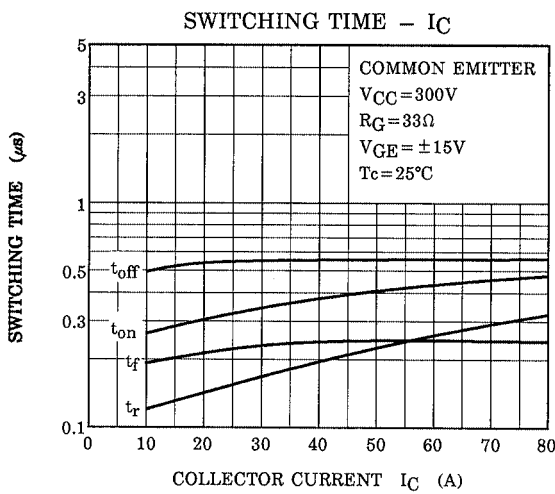
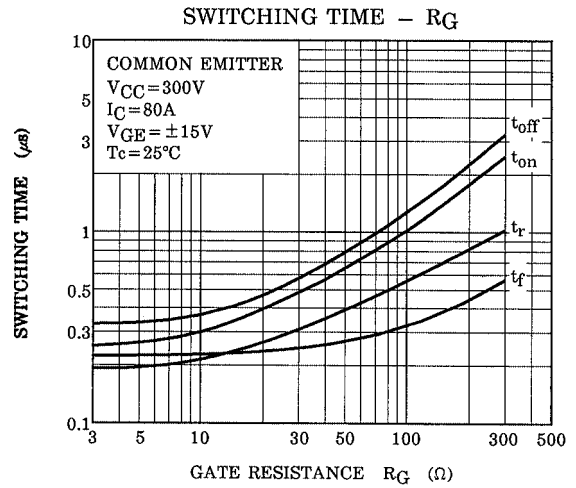
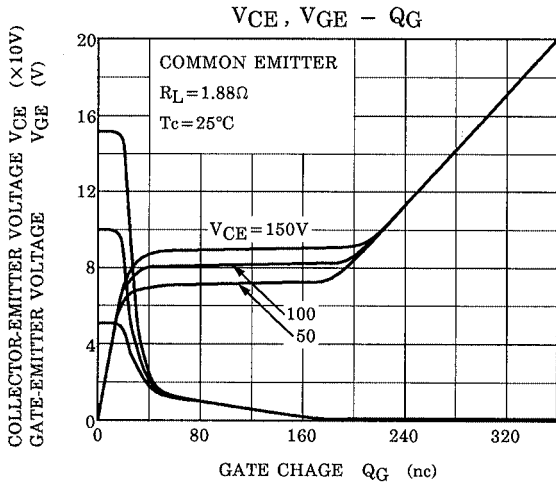


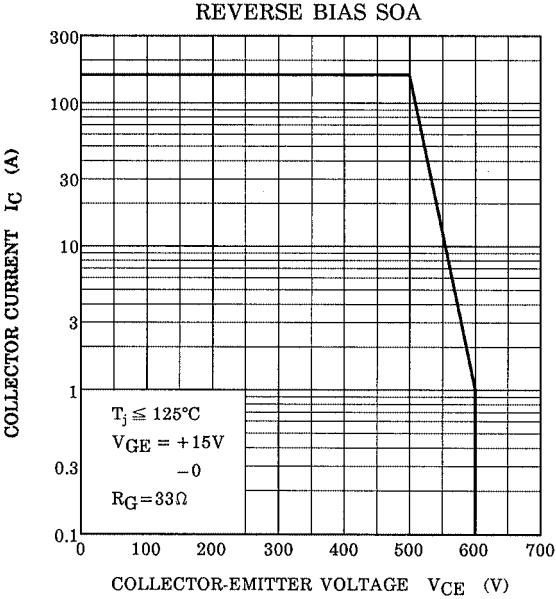
Weight: 9.75g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Gate Leakage Current	$I_{GES}$	$V_{GE} = \pm 20\text{V}, V_{CE} = 0$	—	—	±500	nA
Collector Cut-Off Current	$I_{CES}$	$V_{CE} = 600\text{V}, V_{GE} = 0$	—	—	1.0	mA
Gate-Emitter Cut-off Voltage	$V_{GE(OFF)}$	$I_C = 80\text{mA}, V_{CE} = 5\text{V}$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}(1)$	$I_C = 10\text{A}, V_{GE} = 15\text{V}$	—	—	2.0	V
	$V_{CE(sat)}(2)$	$I_C = 80\text{A}, V_{GE} = 15\text{V}$	—	2.5	3.5	
Input Capacitance	$C_{ies}$	$V_{CE} = 10\text{V}, V_{GE} = 0, f = 1\text{MHz}$	—	5500	—	pF
Switching Time	Rise Time	$t_r$	—	0.3	0.6	μs
	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	°C/W







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