

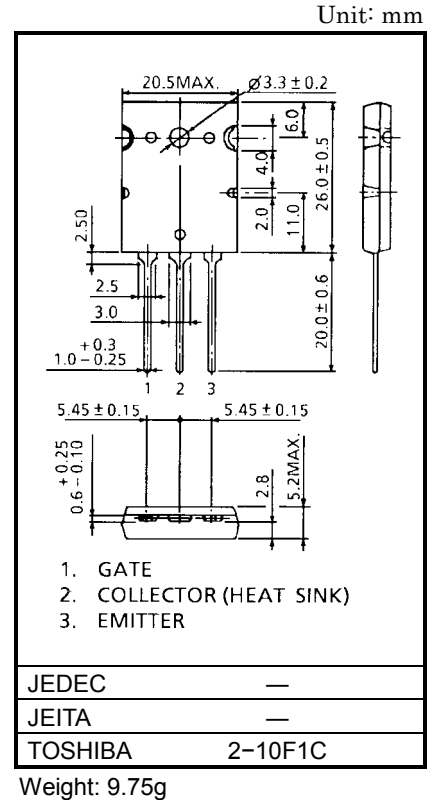
GT80J101

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

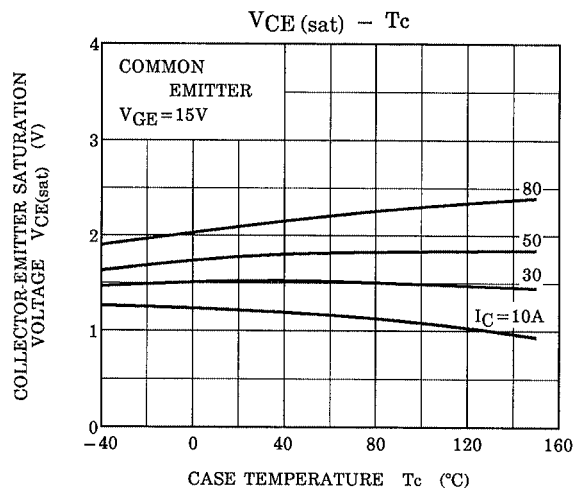
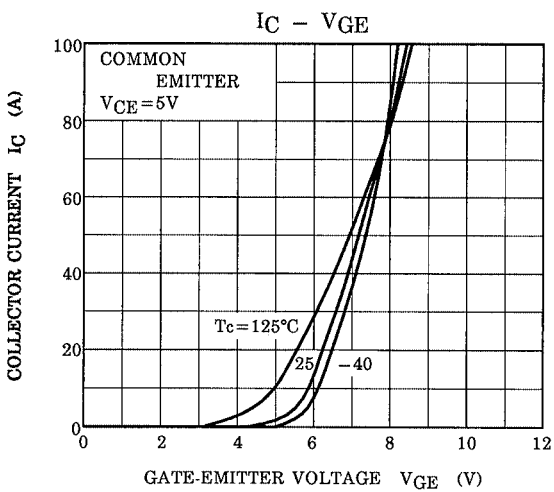
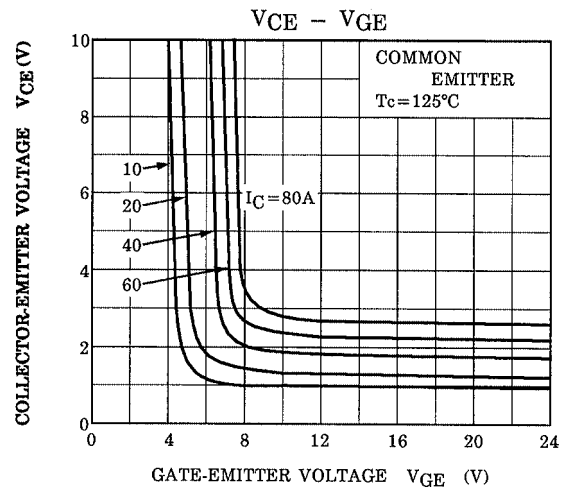
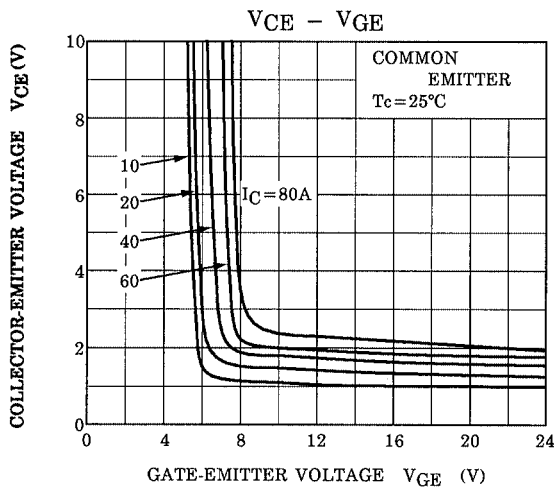
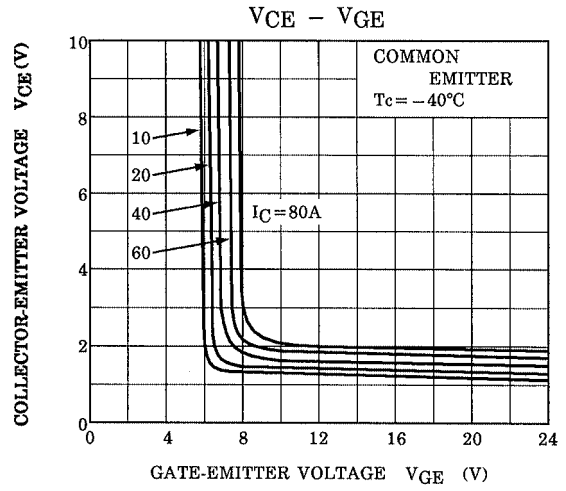
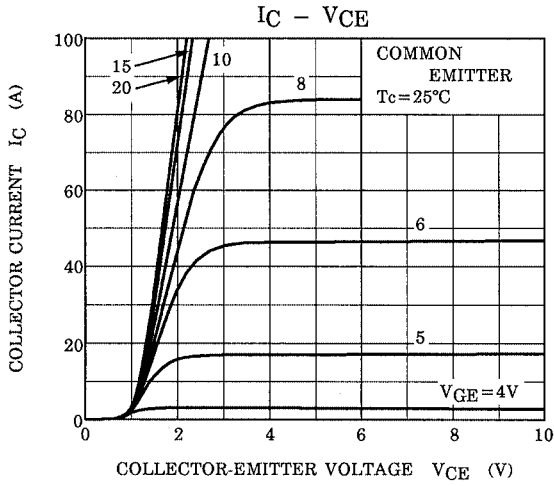
MAXIMUM RATINGS (Ta = 25°C)

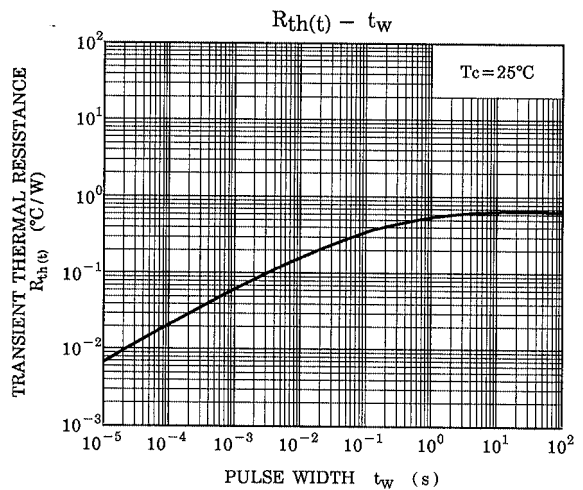
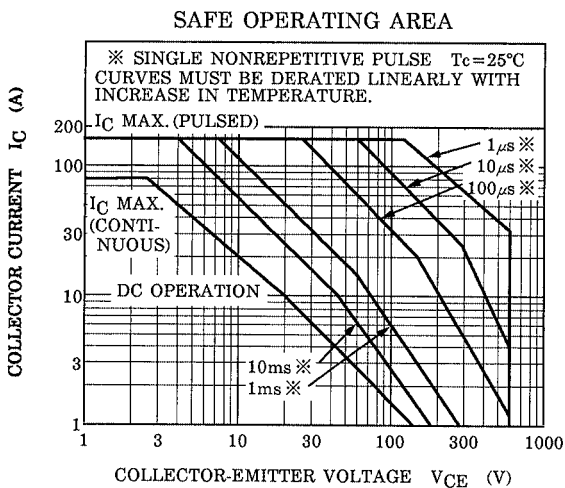
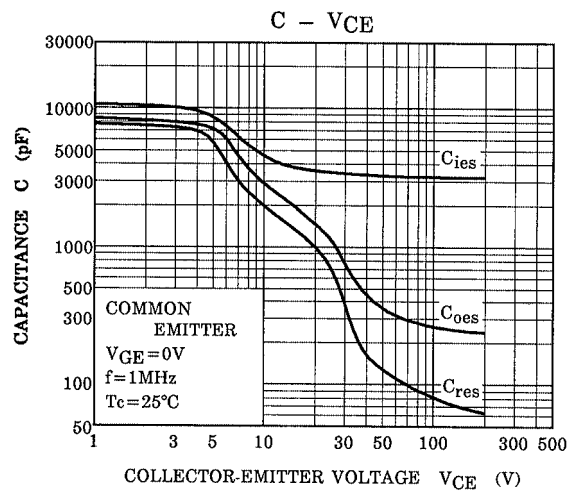
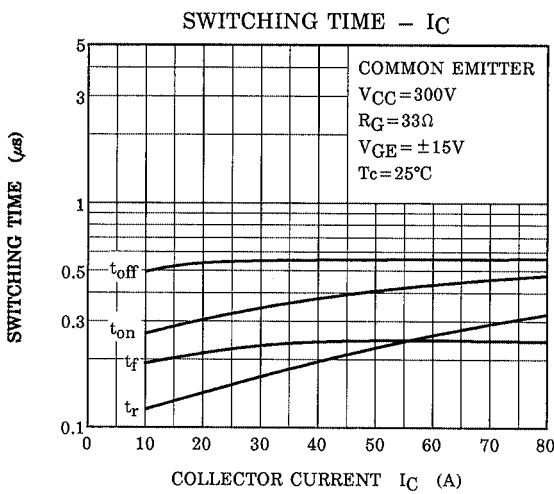
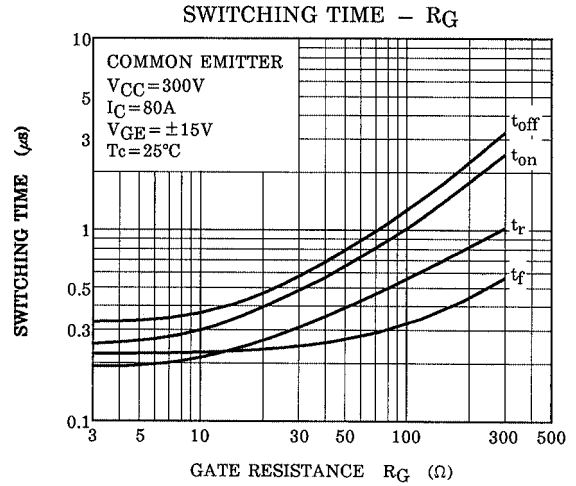
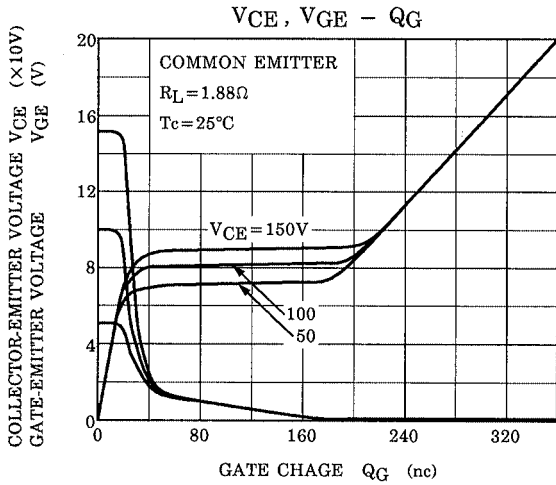
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V_{CES}	600	V
Gate-Emitter Voltage	V_{GES}	±20	V
Collector Current	DC	I_C	80
	1ms	I_{CP}	160
Collector Power Dissipation (Tc = 25°C)	P_C	200	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C
Screw Torque	—	0.8	N·m

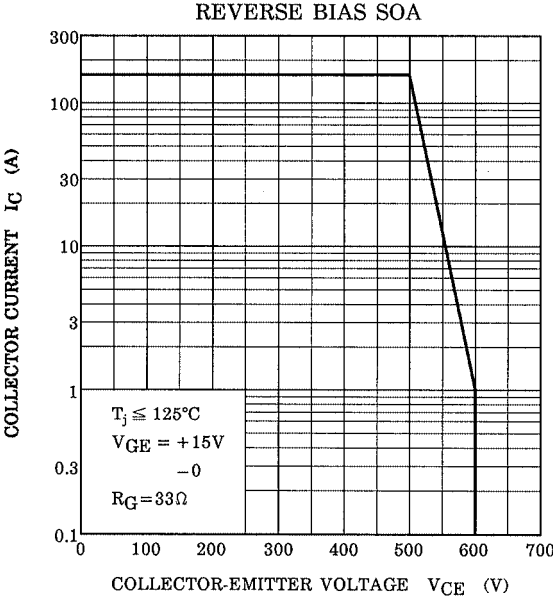


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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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