

GT80J101A

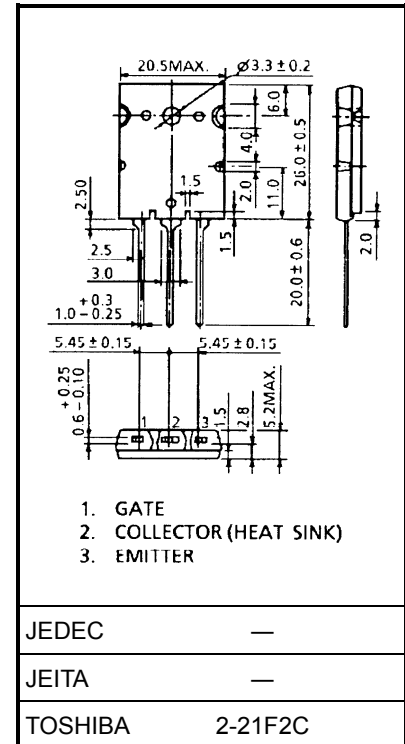
High Power Switching Applications

Unit: mm

- Enhancement-Mode
- High Speed: $t_f = 0.40 \mu s$ (max) ($I_C = 80 A$)
- Low Saturation Voltage: $V_{CE(sat)} = 3.0 V$ (max) ($I_C = 80 A$)

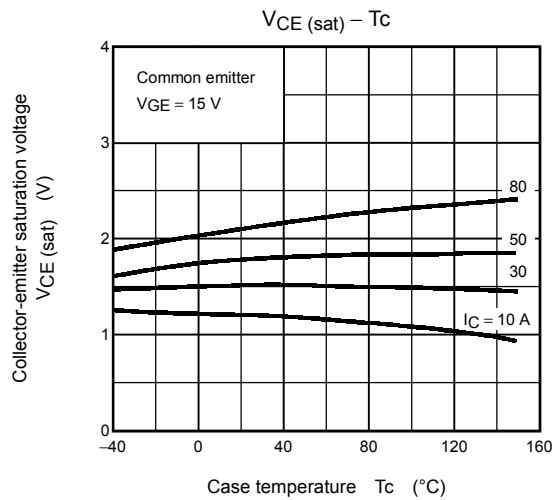
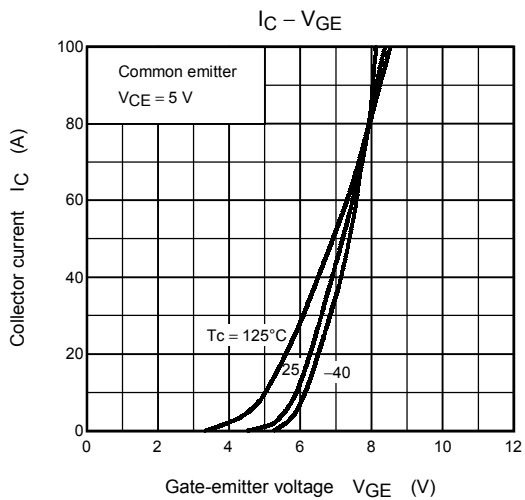
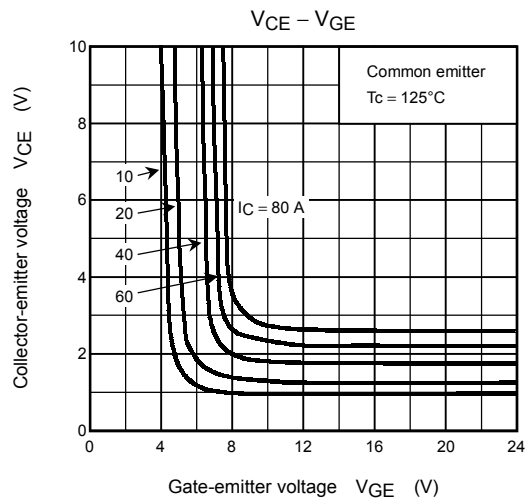
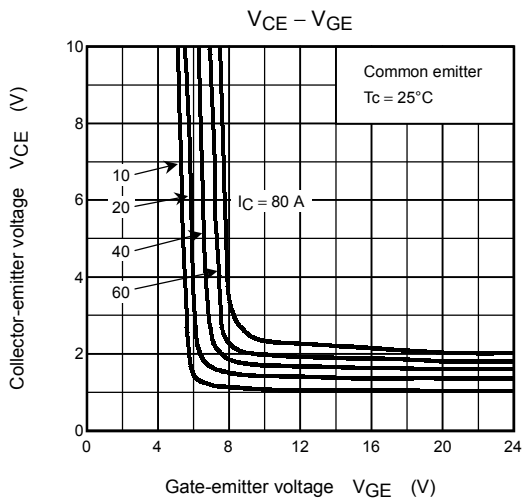
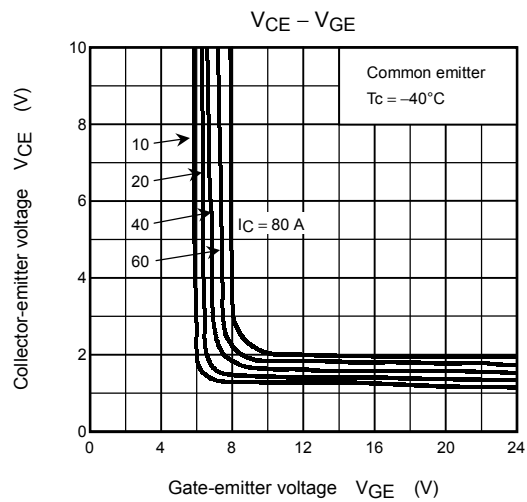
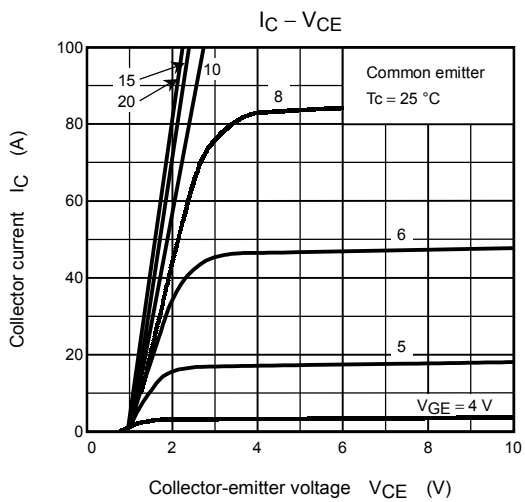
Maximum Ratings ($T_a = 25^\circ C$)

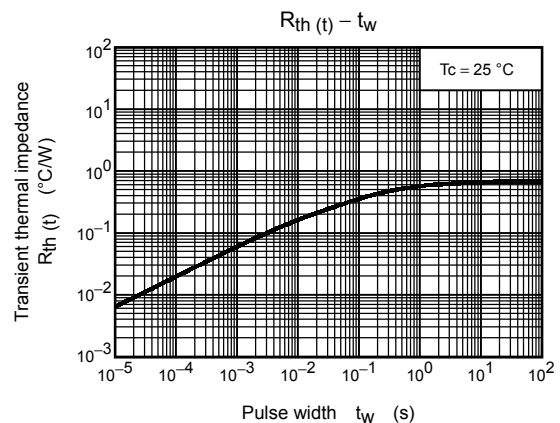
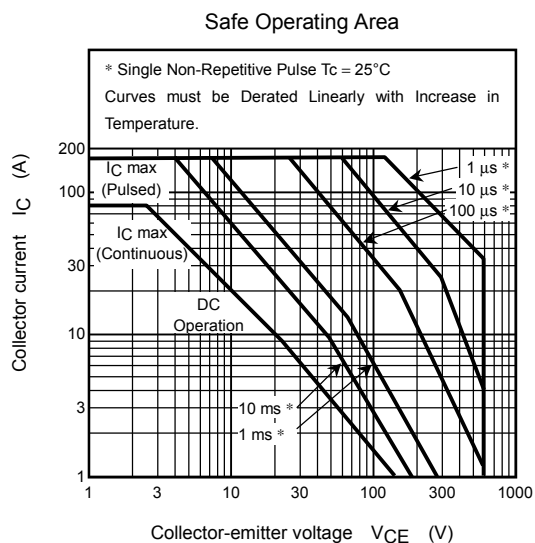
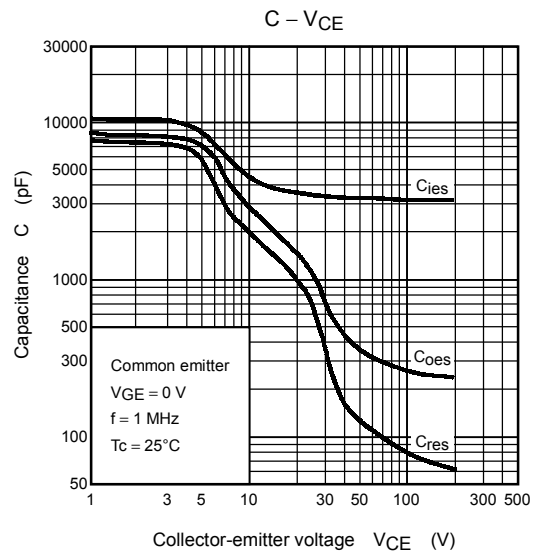
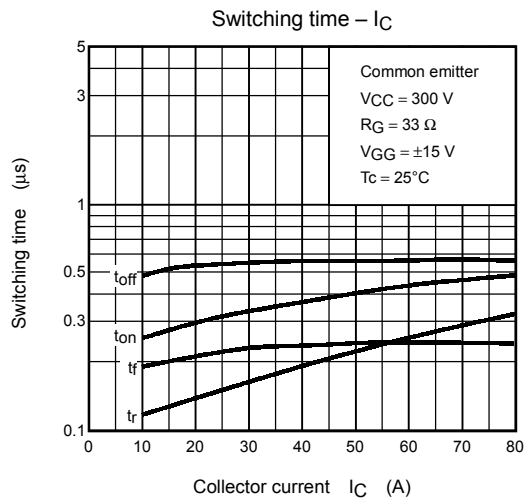
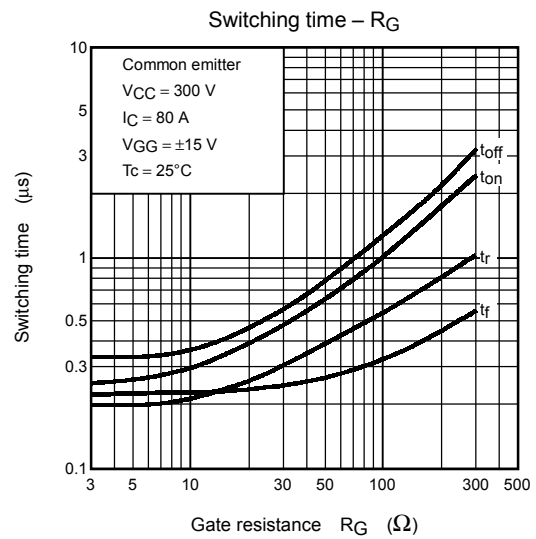
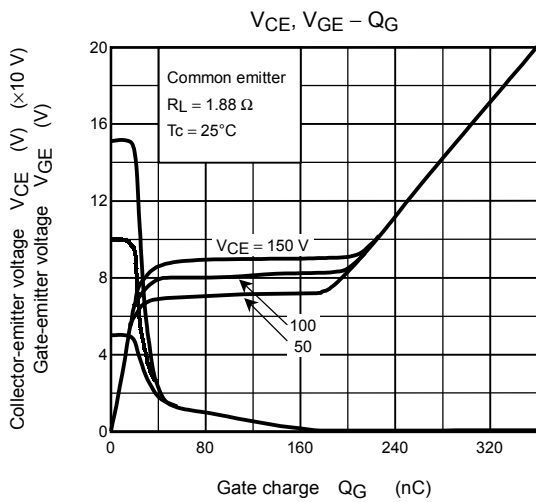
Characteristics		Symbol	Rating	Unit
Collector-emitter voltage		V_{CES}	600	V
Gate-emitter voltage		V_{GES}	± 20	V
Collector current	DC	I_C	80	A
	1ms	I_{CP}	160	
Collector power dissipation ($T_c = 25^\circ C$)		P_C	200	W
Junction temperature		T_j	150	$^\circ C$
Storage temperature		T_{stg}	$-55 \sim 150$	$^\circ C$
Screw torque		—	0.8	N·m

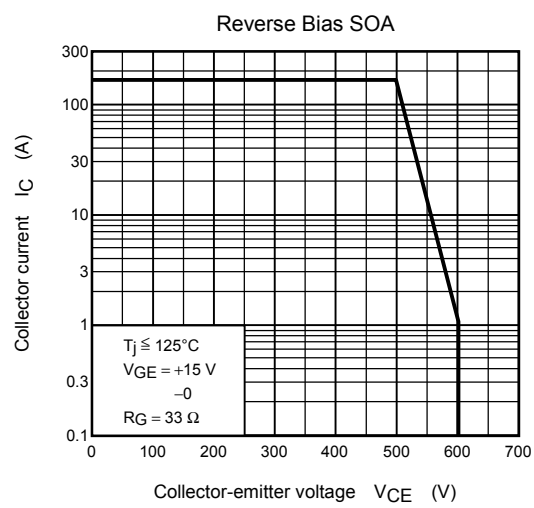
Electrical Characteristics ($T_a = 25^\circ C$)

Weight: 9.75 g (typ.)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current		I_{GES}	$V_{GE} = \pm 25 V, V_{CE} = 0$	—	—	± 500	nA
Collector cut-off current		I_{CES}	$V_{CE} = 600 V, V_{GE} = 0$	—	—	1.0	mA
Gate-emitter cut-off voltage		$V_{GE(OFF)}$	$V_{CE} = 5 V, I_C = 80 mA$	3.0	—	6.0	V
Collector-emitter saturation voltage		$V_{CE(sat)} (1)$	$I_C = 10 A, V_{GE} = 15 V$	—	—	2.0	V
		$V_{CE(sat)} (2)$	$I_C = 80 A, V_{GE} = 15 V$	—	2.4	3.0	
Input capacitance		C_{ies}	$V_{CE} = 10 V, V_{GE} = 0, f = 1 MHz$	—	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	$^\circ C/W$







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