

GT80J101A

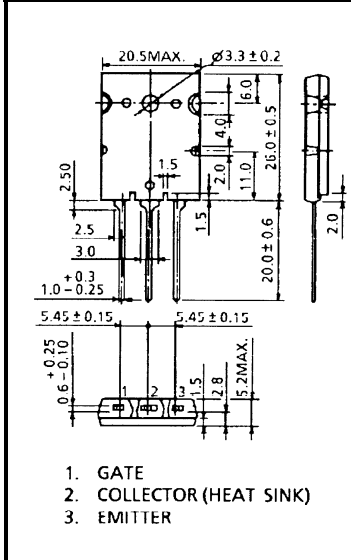
High Power Switching Applications

Unit: mm

- Enhancement mode type
- High speed: $t_f = 0.40 \mu s$ (max) ($I_C = 80 A$)
- Low saturation voltage: $V_{CE(sat)} = 3.0 V$ (max) ($I_C = 80 A$)

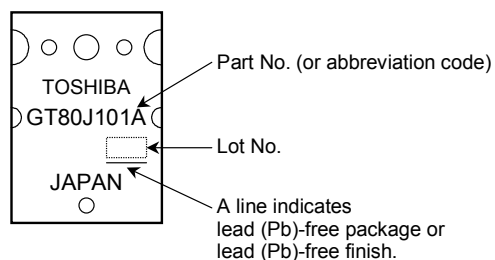
Maximum Ratings ($T_a = 25^\circ C$)

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

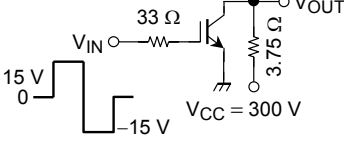
	
JEDEC	—
JEITA	—
TOSHIBA	2-21F2C

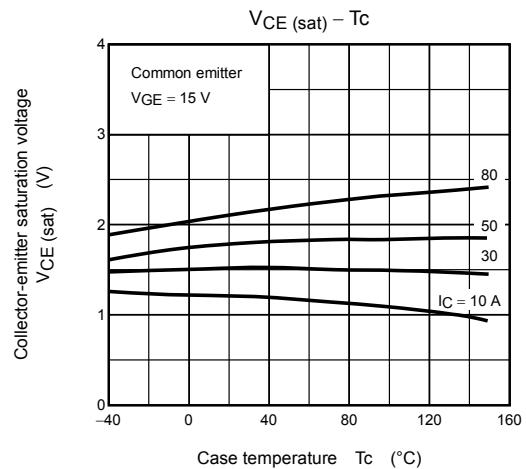
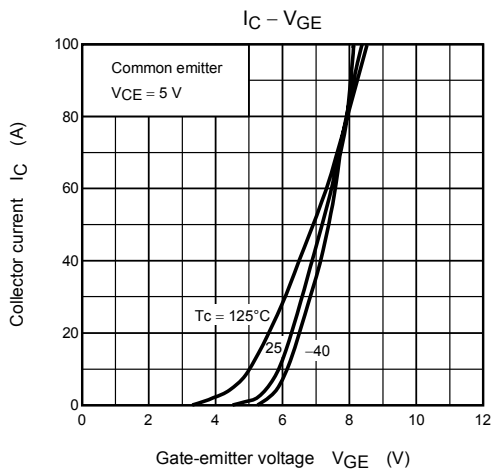
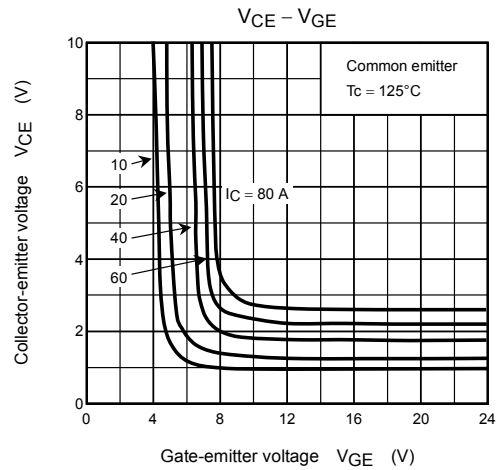
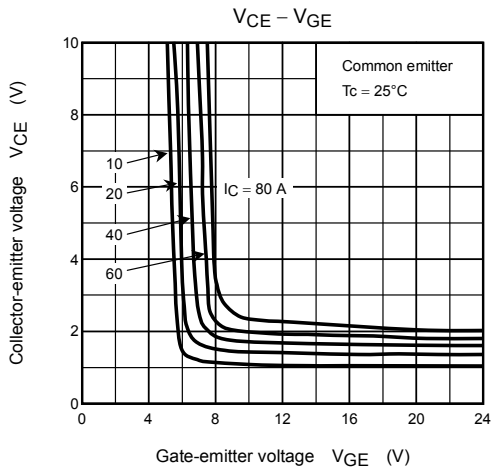
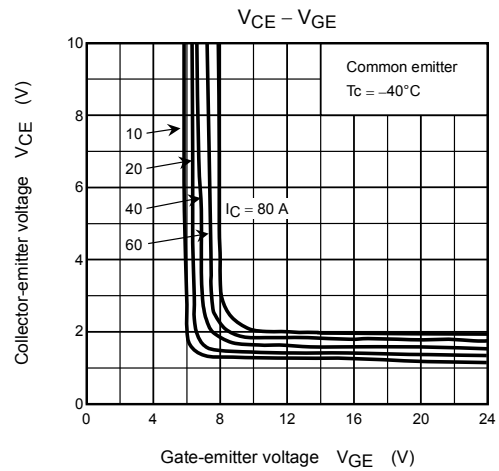
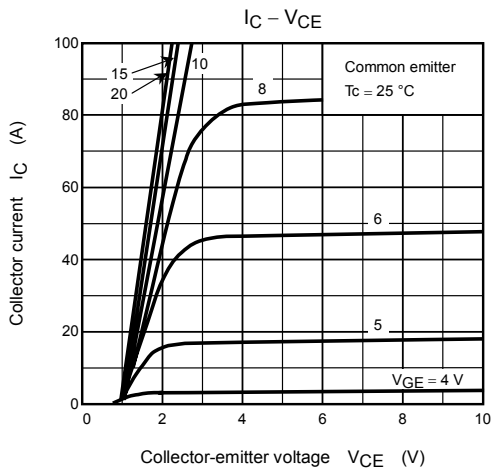
Weight: 9.75 g (typ.)

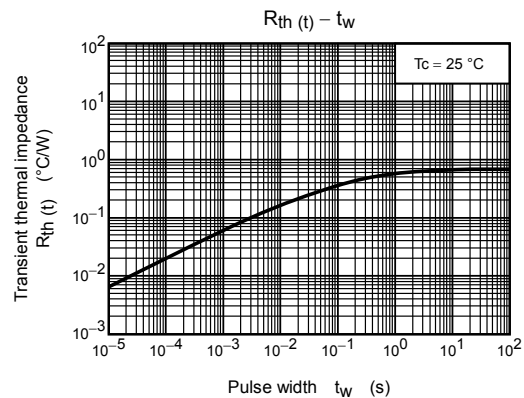
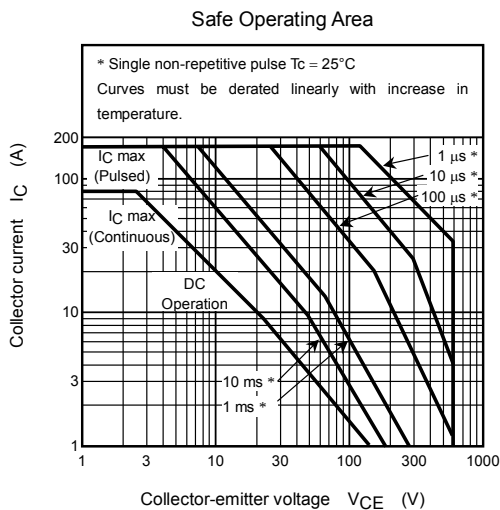
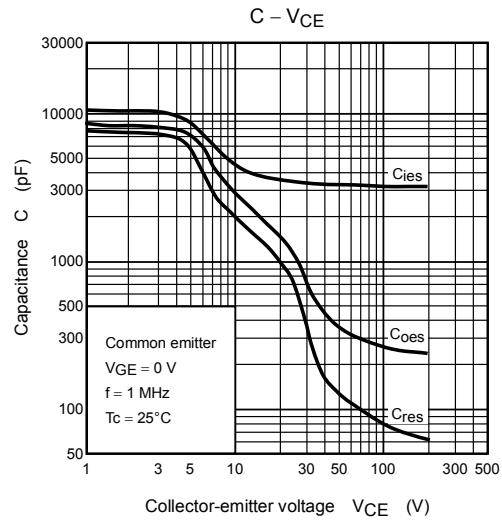
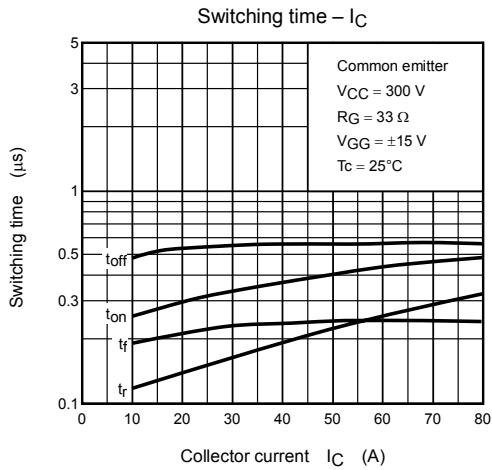
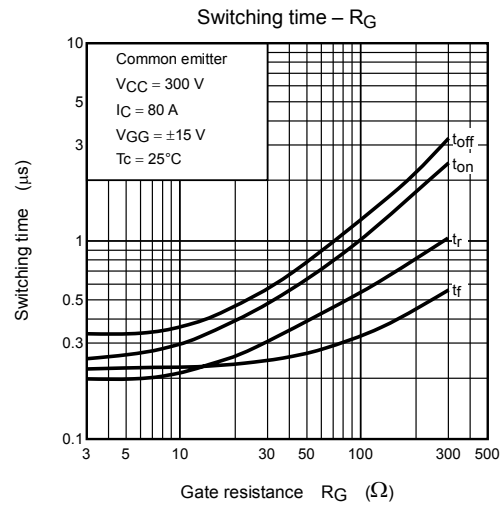
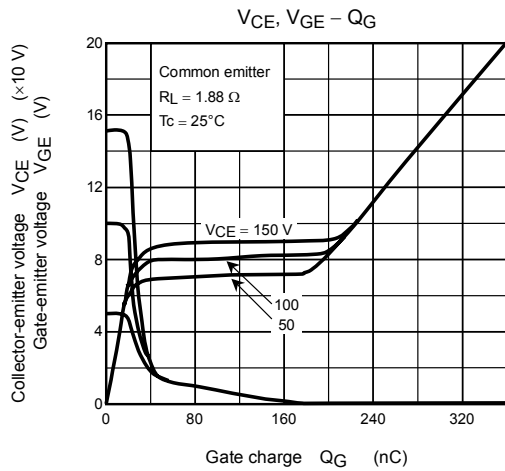
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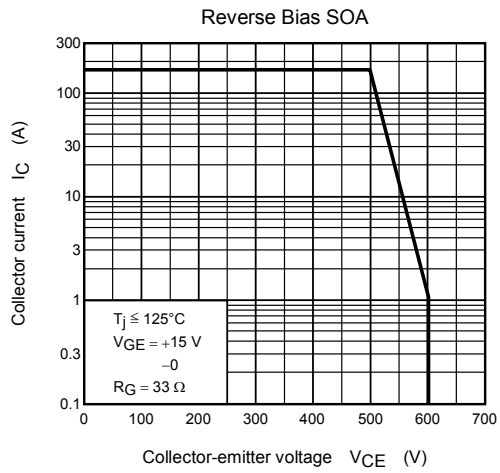


Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current		I_{GES}	$V_{GE} = \pm 25 \text{ V}, V_{CE} = 0$	—	—	± 500	nA
Collector cut-off current		I_{CES}	$V_{CE} = 600 \text{ V}, V_{GE} = 0$	—	—	1.0	mA
Gate-emitter cut-off voltage		$V_{GE} \text{ (OFF)}$	$V_{CE} = 5 \text{ V}, I_C = 80 \text{ mA}$	3.0	—	6.0	V
Collector-emitter saturation voltage		$V_{CE} \text{ (sat) (1)}$	$I_C = 10 \text{ A}, V_{GE} = 15 \text{ V}$	—	—	2.0	V
		$V_{CE} \text{ (sat) (2)}$	$I_C = 80 \text{ A}, V_{GE} = 15 \text{ V}$	—	2.4	3.0	
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		$R_{th} \text{ (j-c)}$	—	—	—	0.625	°C/W







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