

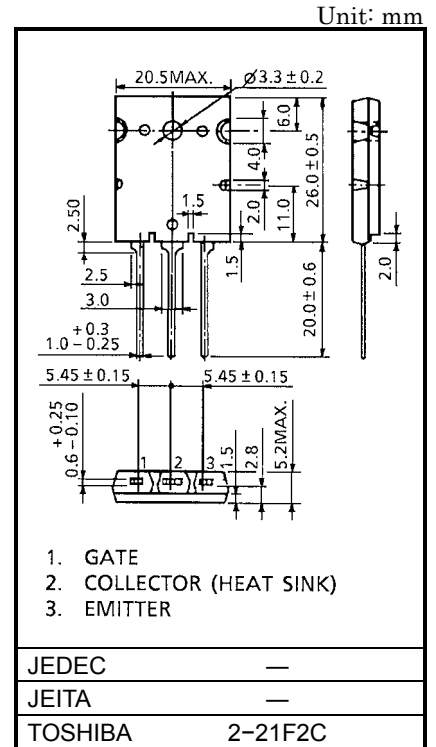
# GT40T101

## HIGH POWER SWITCHING APPLICATIONS

- Enhancement-Mode
- High Speed :  $t_f = 0.4 \mu s$  (Max.) ( $I_C = 40 A$ )
- Low Saturation :  $V_{CE(sat)} = 5.0 V$  (Max.) ( $I_C = 40 A$ )

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

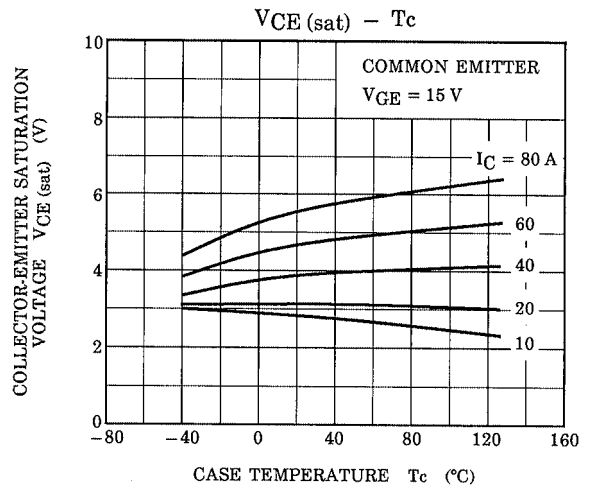
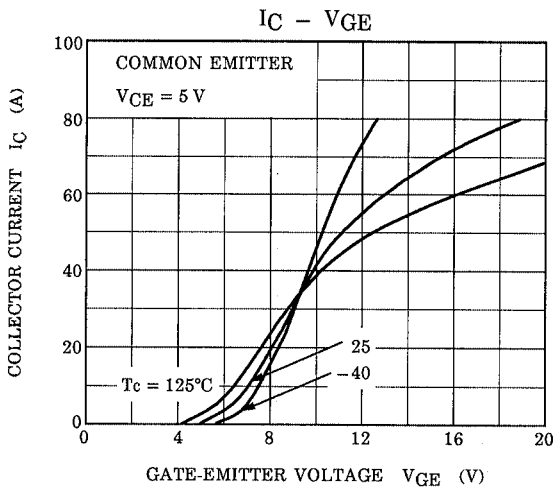
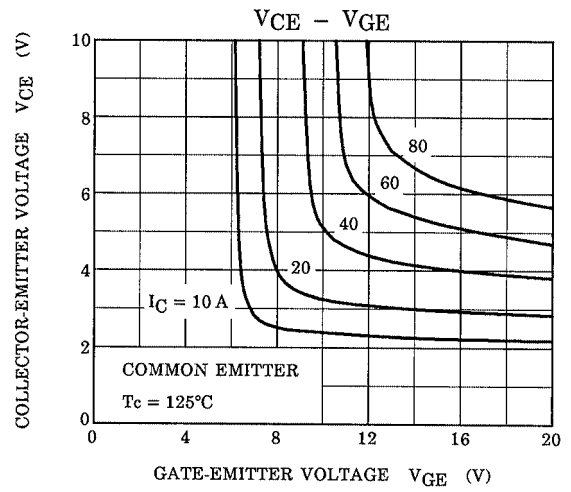
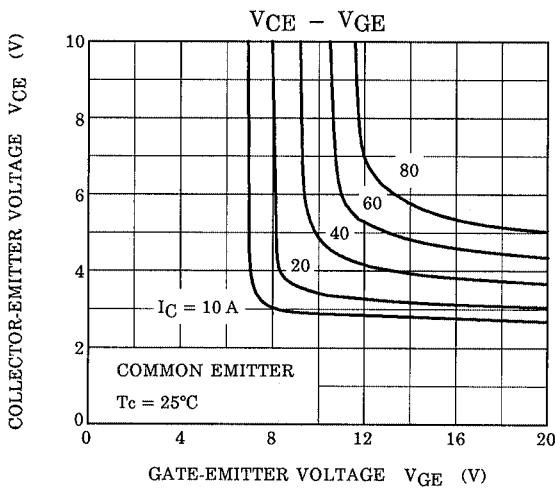
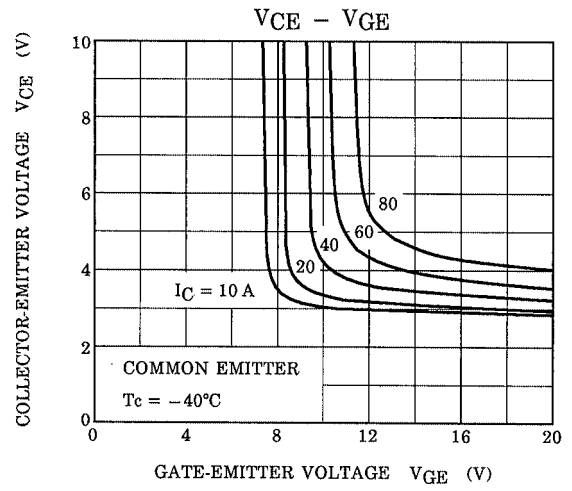
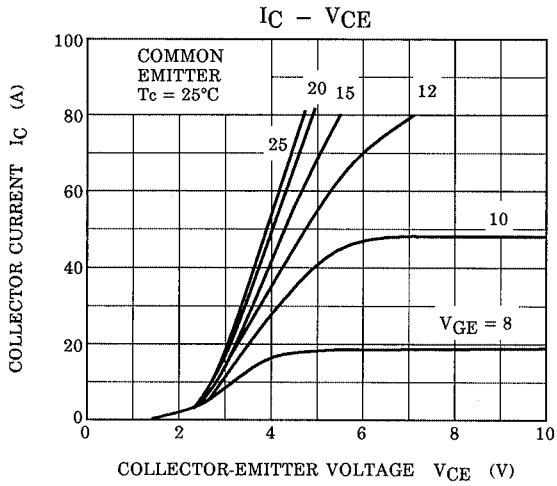
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		$V_{CES}$	1500	V
Gate-Emitter Voltage		$V_{GES}$	$\pm 25$	V
Collector Current	DC	$I_C$	40	A
	1ms	$I_{CP}$	80	
Collector Power Dissipation ( $T_c = 25^\circ C$ )		$P_C$	200	W
Junction Temperature		$T_j$	150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ C$

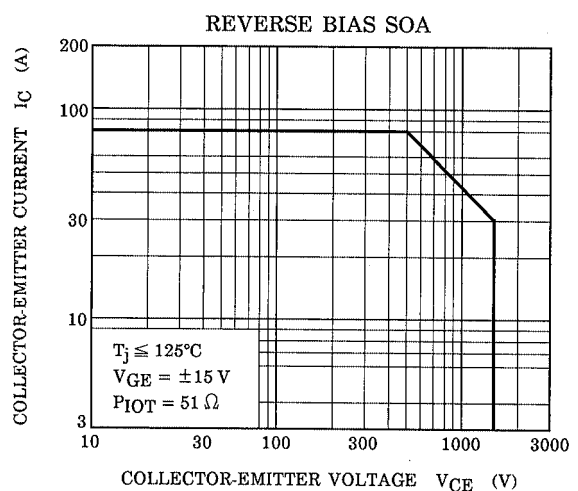
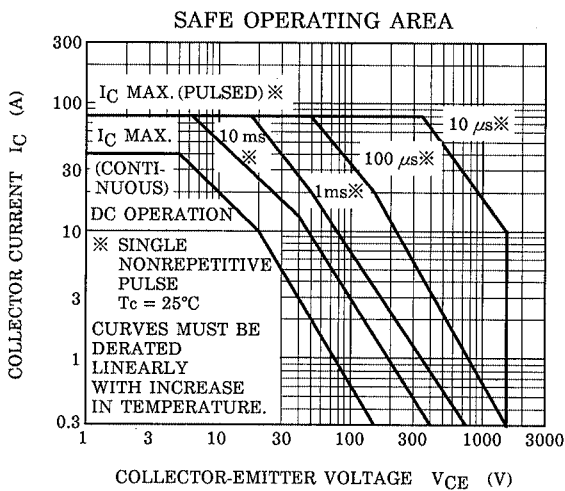
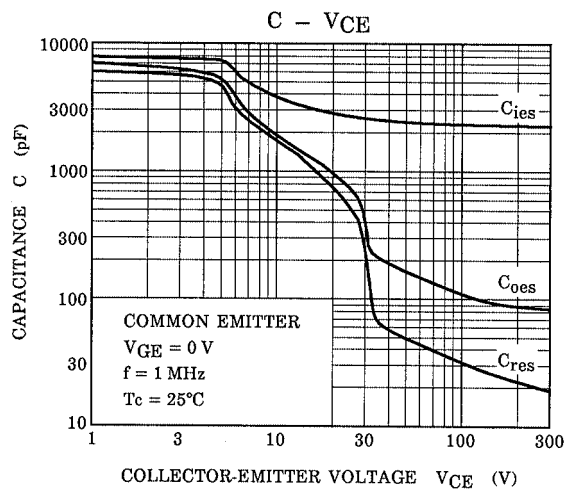
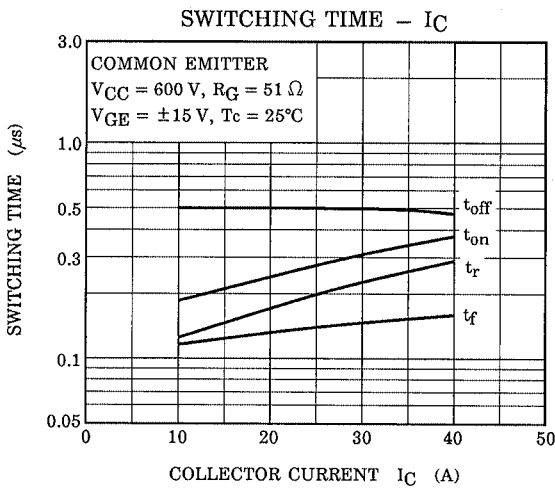
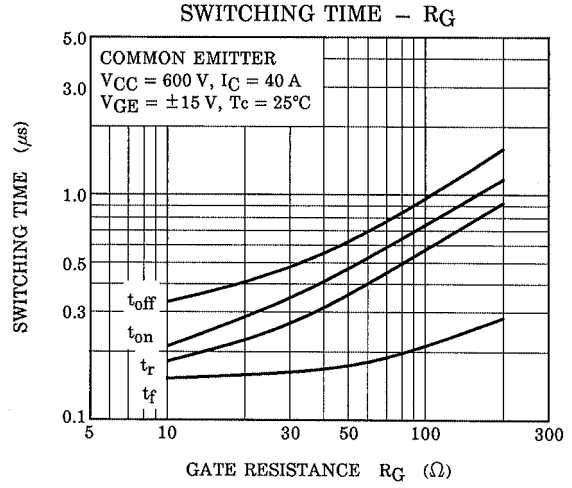
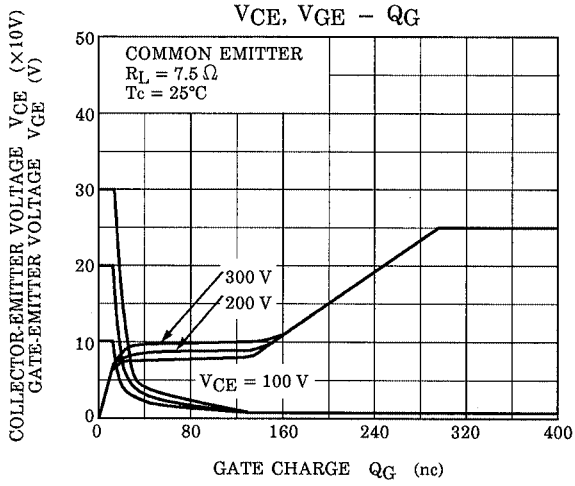


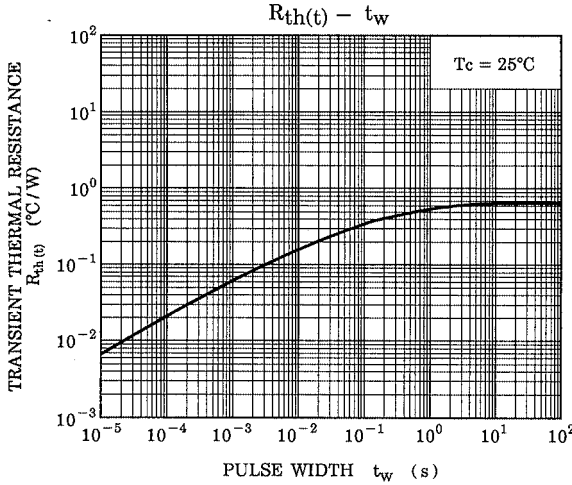
Weight: 9.75g

## ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Gate Leakage Current		$I_{GES}$	$V_{GE} = \pm 25 V, V_{CE} = 0$	—	—	$\pm 500$	nA
Collector Cut-off Current		$I_{CES}$	$V_{CE} = 1500 V, V_{GE} = 0$	—	—	1.0	mA
Gate-Emitter Cut-off Voltage		$V_{GE(OFF)}$	$I_C = 40 mA, V_{CE} = 5 V$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 40 A, V_{GE} = 15 V$	—	4.0	5.0	V
Input Capacitance		$C_{ies}$	$V_{CE} = 10 V, V_{GE} = 0, f = 1 MHz$	—	3600	—	pF
Switching Time	Rise Time	$t_r$		—	0.6	1.0	$\mu s$
	Turn-On Time	$t_{on}$		—	0.7	1.1	
	Fall Time	$t_f$		—	0.2	0.4	
	Turn-Off Time	$t_{off}$		—	0.5	1.0	
Thermal Resistance		$R_{th(j-c)}$	—	—	0.625	$^\circ C / W$	







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