

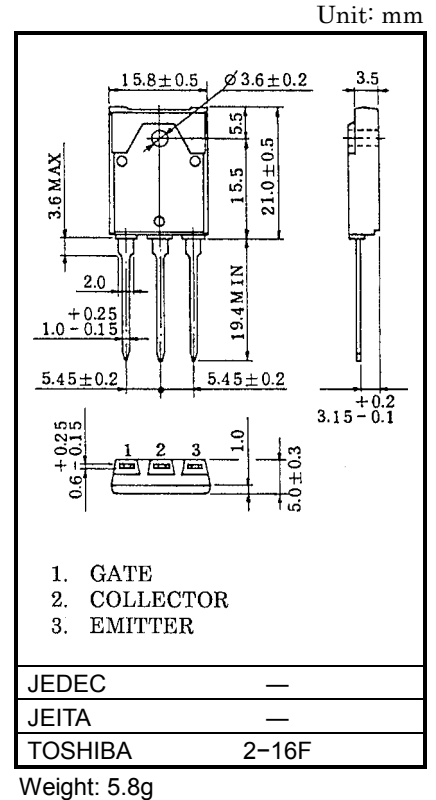
# GT40M101

## HIGH POWER SWITCHING APPLICATIONS

- High Input Impedance
- High Speed :  $t_f = 0.4\mu s$  (Max.)
- Low Saturation Voltage :  $V_{CE(sat)} = 3.4V$  (Max.)
- Enhancement-Mode

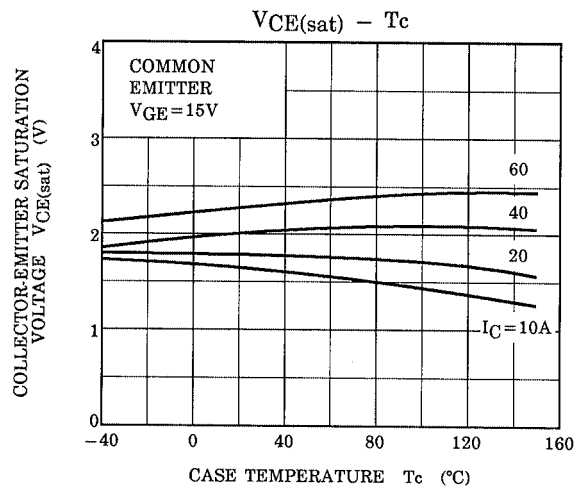
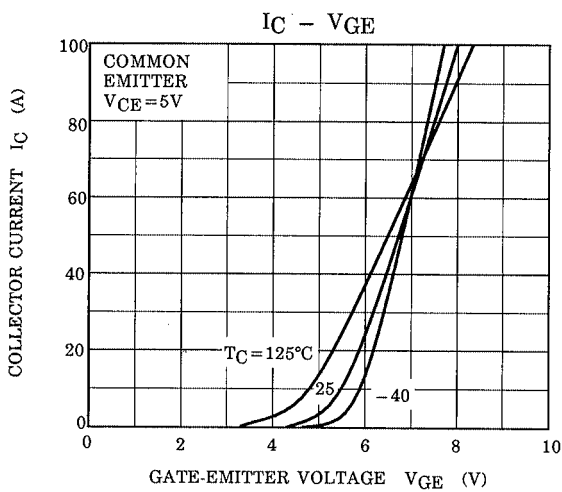
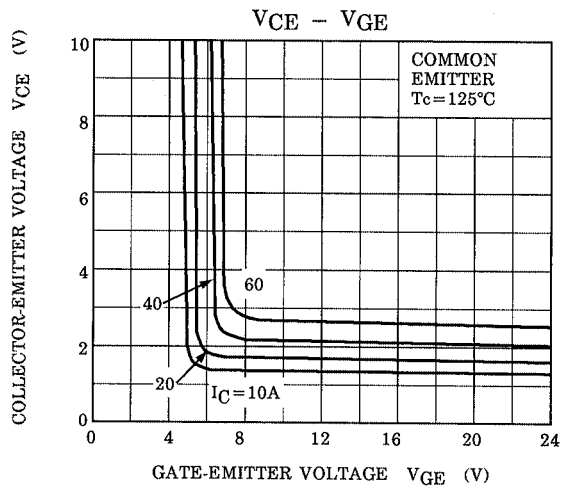
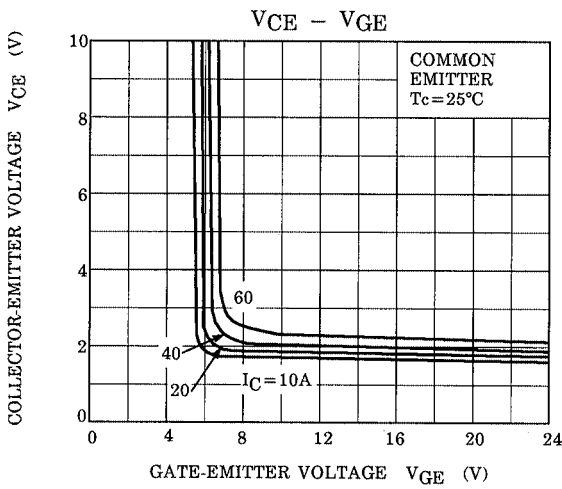
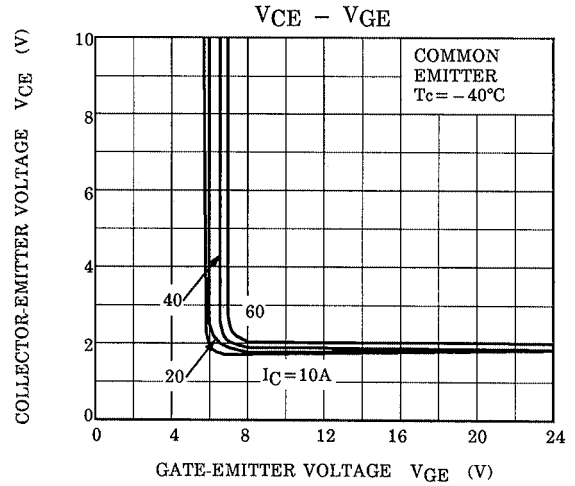
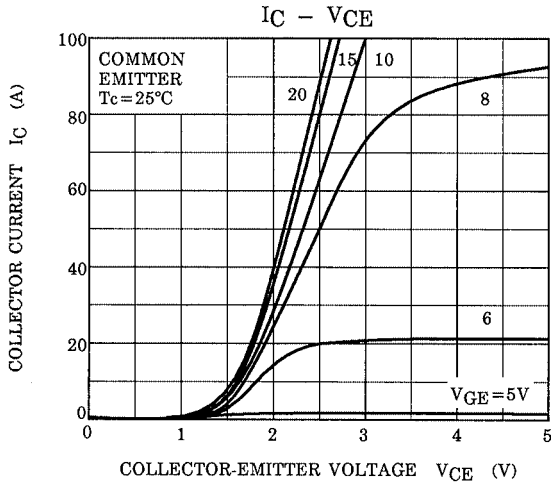
## MAXIMUM RATINGS (Ta = 25°C)

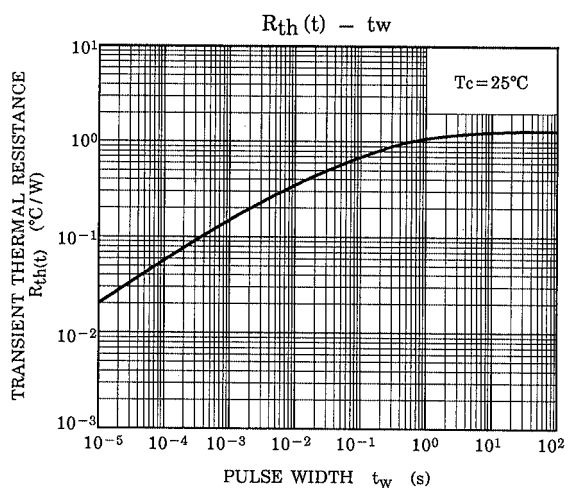
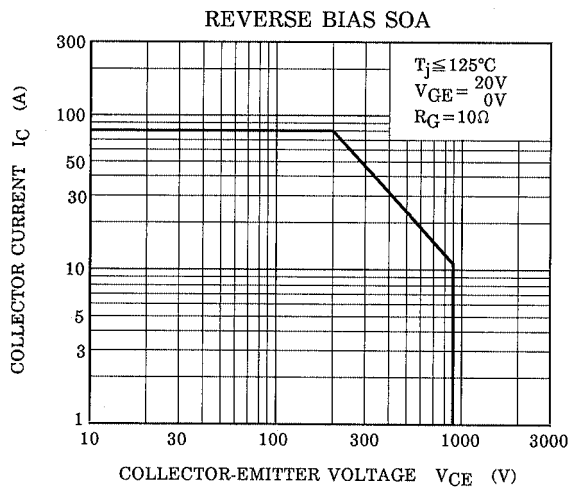
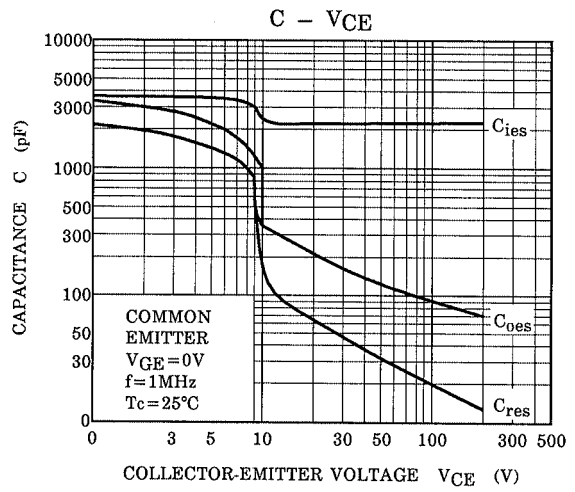
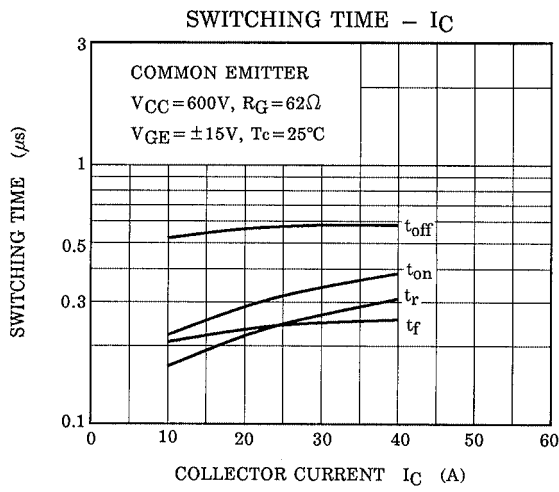
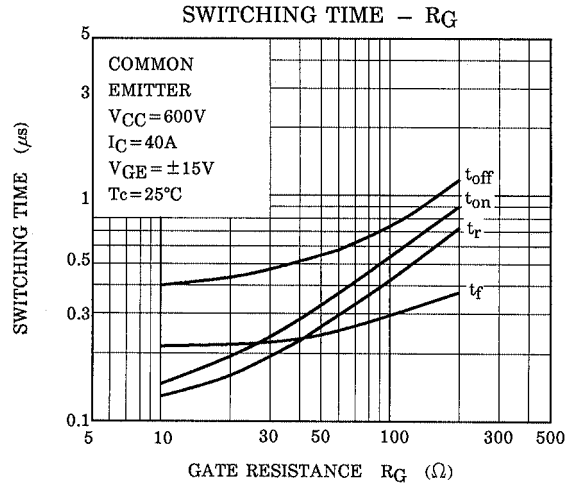
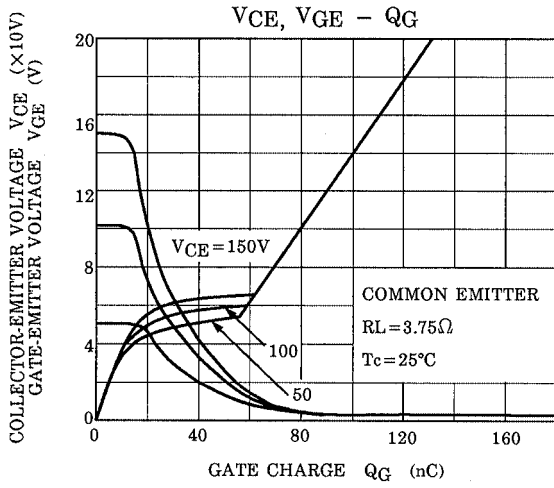
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		$V_{CES}$	900	V
Gate-Emitter Voltage		$V_{GES}$	±25	V
Collector Current	DC	$I_C$	40	A
	1ms	$I_{CP}$	80	
Collector Power Dissipation (Tc = 25°C)		$P_C$	90	W
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55~150	°C
Screw Torque		—	0.8	N·m

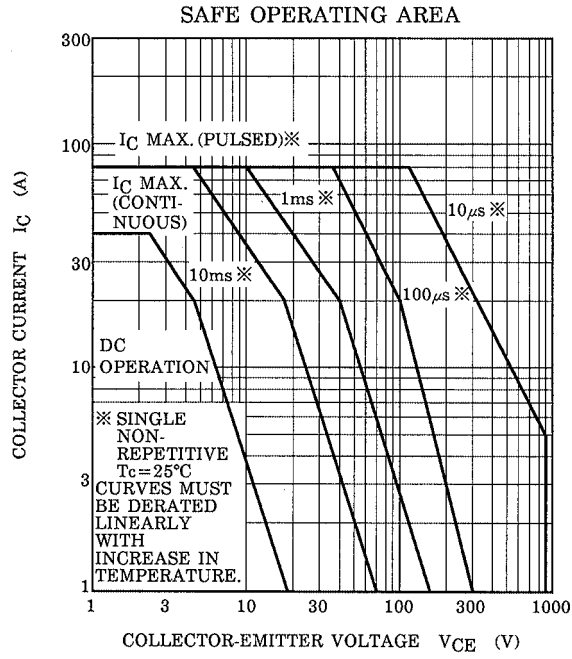


## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Gate Leakage Current		$I_{GES}$	$V_{GE} = \pm 25V, V_{CE} = 0$	—	—	±500	nA
Collector Cut-off Current		$I_{CES}$	$V_{CE} = 900V, V_{GE} = 0$	—	—	1.0	mA
Gate-Emitter Cut-off Voltage		$V_{GE(OFF)}$	$I_C = 40mA, V_{CE} = 5V$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 40A, V_{GE} = 15V$	—	2.1	3.4	V
Input Capacitance		$C_{ies}$	$V_{CE} = 30V, V_{GE} = 0, f = 1MHz$	—	2100	—	pF
Switching Time	Rise Time	$t_r$		—	0.30	—	μs
	Turn-On Time	$t_{on}$		—	0.40	—	
	Fall Time	$t_f$		—	0.25	0.40	
	Turn-Off Time	$t_{off}$		—	0.60	—	
Thermal Resistance		$R_{th(j-c)}$	—	—	—	1.39	°C/W







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