

GT25G101

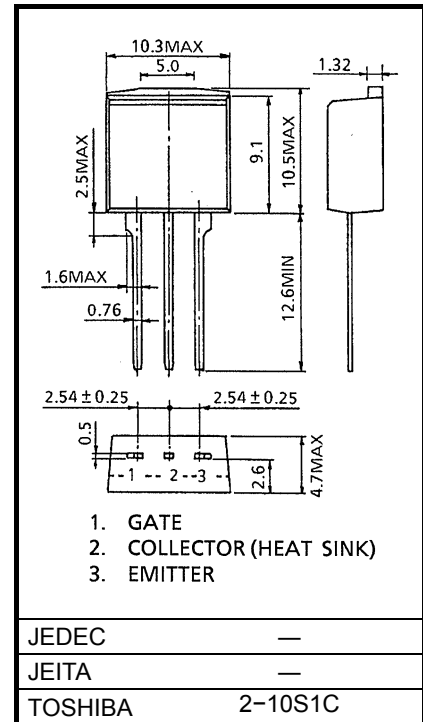
Unit in mm

STROBE FLASH APPLICATIONS

- High Input Impedance
- Low Saturation Voltage : $V_{CE(sat)}=8V$ (Max.) ($I_C=170A$)
- Enhancement-Mode
- 20V Gate Drive

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		V_{CES}	400	V
Gate-Emitter Voltage		V_{GES}	± 25	V
Collector Current	DC	I_C	25	A
	1ms	I_{CP}	170	
Collector Power Dissipation	$T_a=25^\circ C$	P_C	1.3	W
	$T_c=25^\circ C$	P_C	75	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	$-55\sim 150$	$^\circ C$



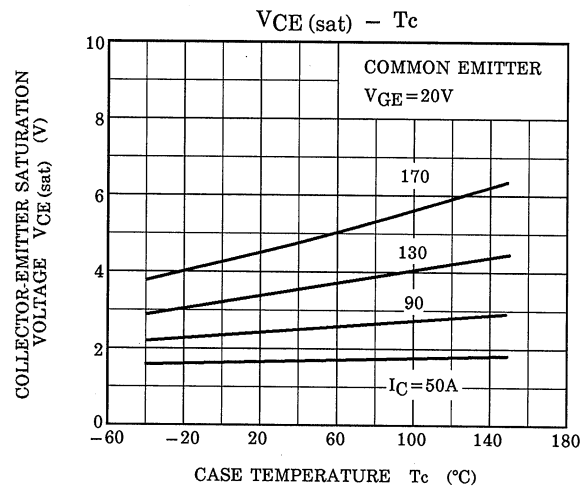
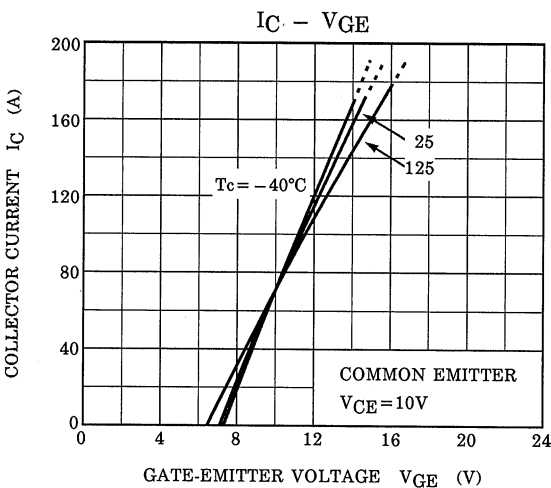
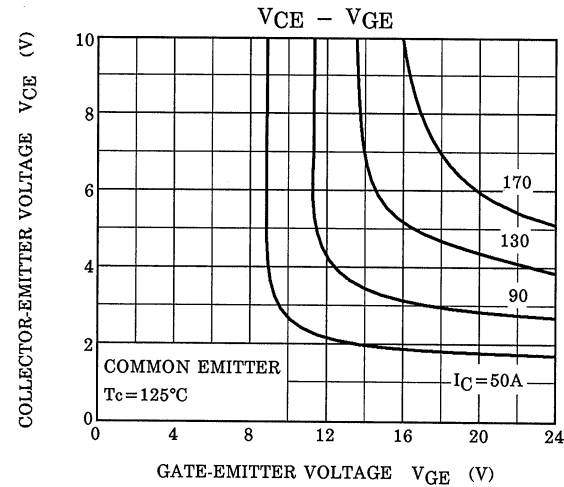
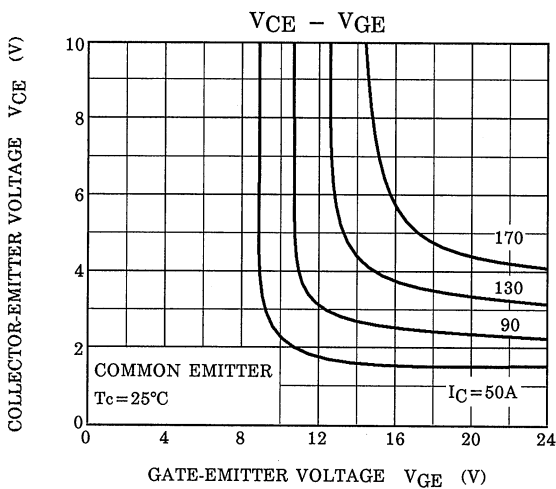
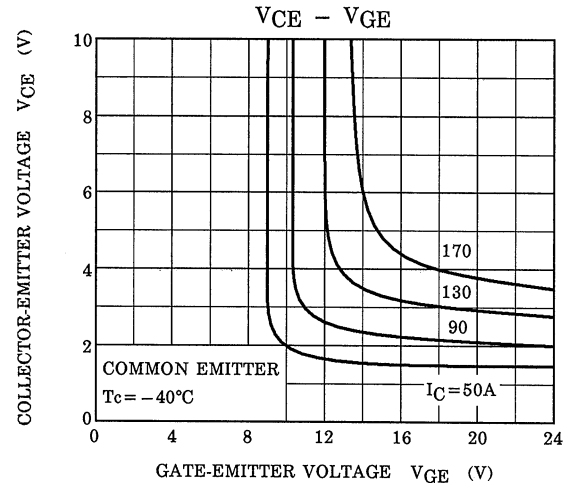
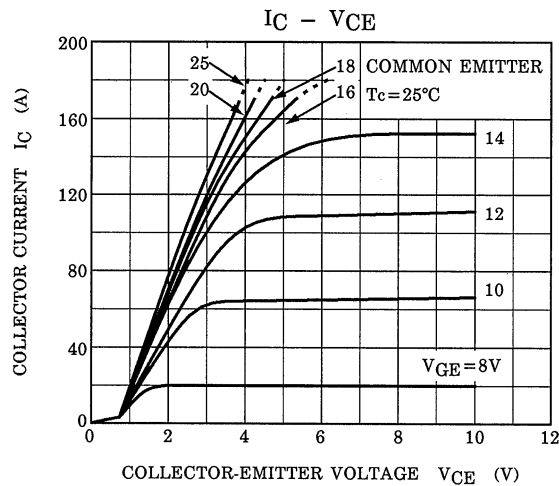
Weight : 1.5g

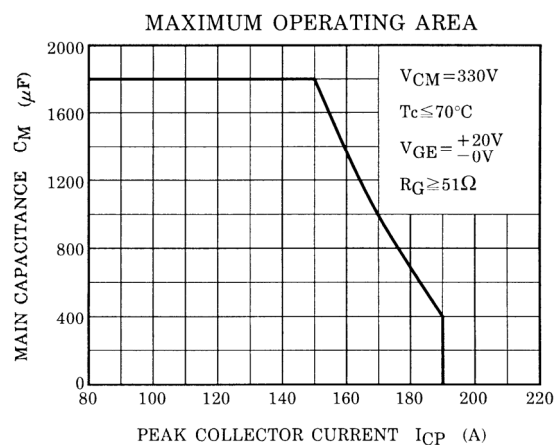
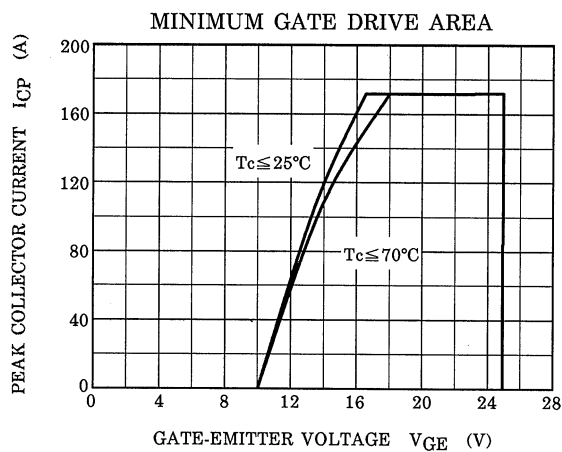
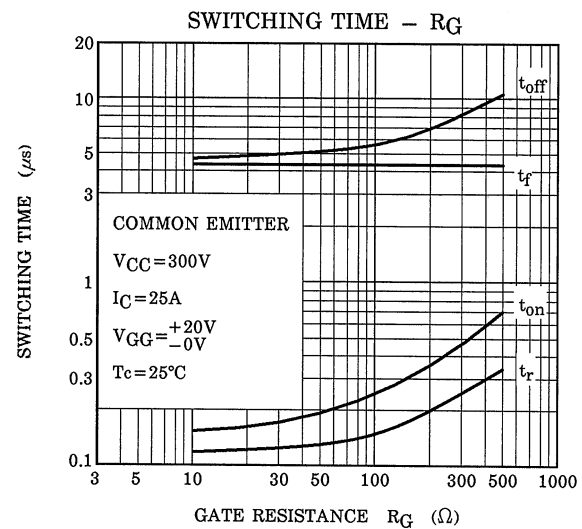
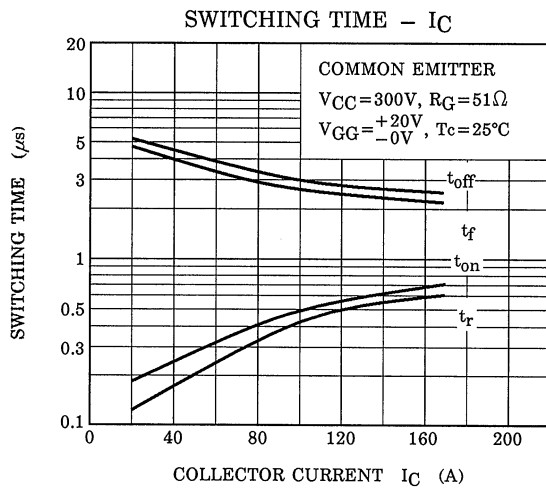
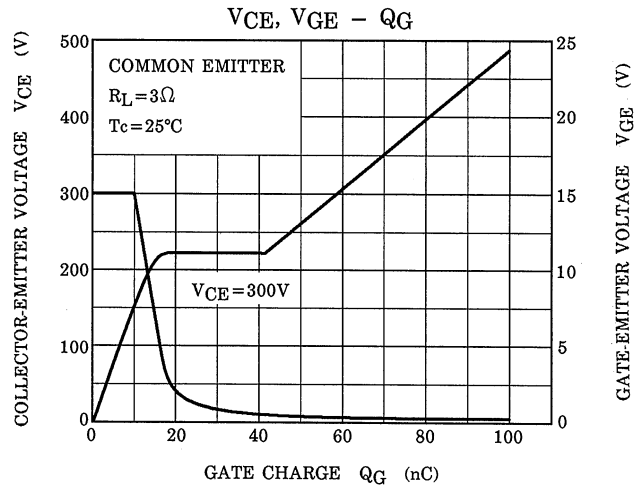
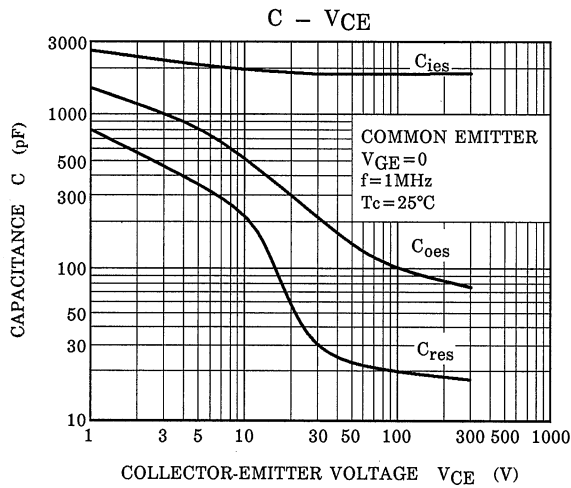
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GES}	$V_{GE}=\pm 25V, V_{CE}=0$	—	—	± 100	nA
Collector Cut-off Current		I_{CES}	$V_{CE}=400V, V_{GE}=0$	—	—	10	μA
Gate-Emitter Cut-off Voltage		$V_{GE(Off)}$	$I_C=1mA, V_{CE}=5V$	4	5	7	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=170A, V_{GE}=20V$ (Pulsed)	—	5	8	V
Input Capacitance		C_{ies}	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	2000	—	pF
Switching Time	Rise Time	t_r		—	0.1	0.5	μs
	Turn-on Time	t_{on}		—	0.15	0.5	
	Fall Time	t_f		—	4.0	6.0	
	Turn-off Time	t_{off}		—	4.5	7.0	
Thermal Resistance		$R_{th(j-c)}$	—	—	—	1.66	$^\circ C/W$





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20070701-EN

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