

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N CHANNEL MOS TYPE

GT5G101

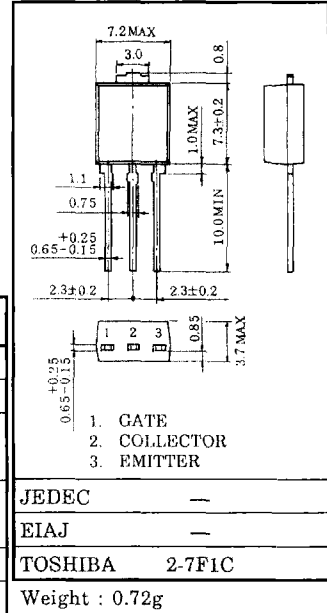
STROBE FLASH APPLICATIONS

Unit in mm

- Enhancement-Mode
- Low Saturation Voltage
: $V_{CE(sat)}=8V$ (Max.) ($I_C=130A$)
- 12V Gate Drive

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V_{CES}	400	V
Gate-Emitter Voltage	V_{GES}	± 20	V
Collector Current	DC	I_C	5
	1ms	I_{CP}	130
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	1.3
	$T_c = 25^\circ C$	P_C	20
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ C$

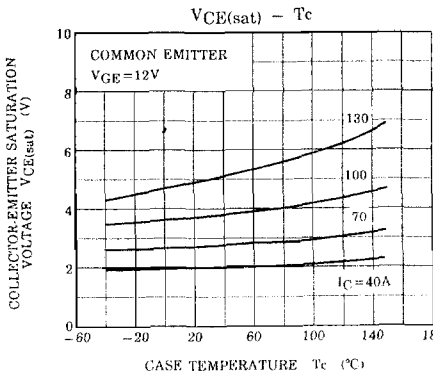
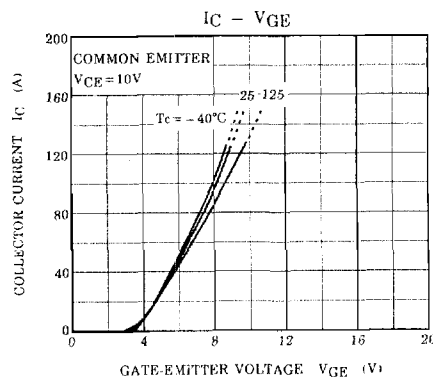
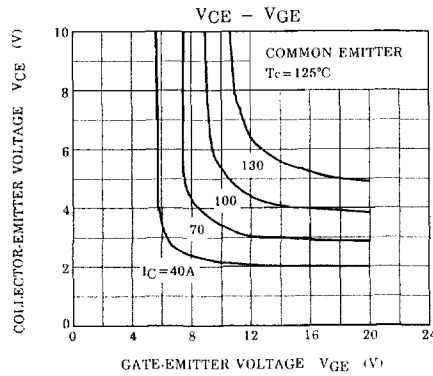
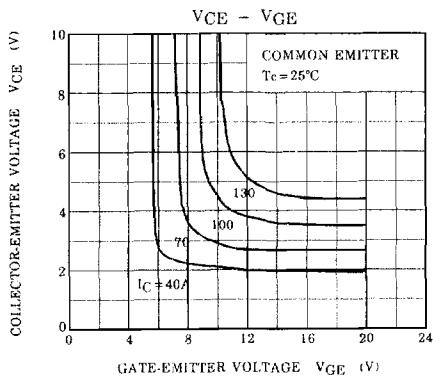
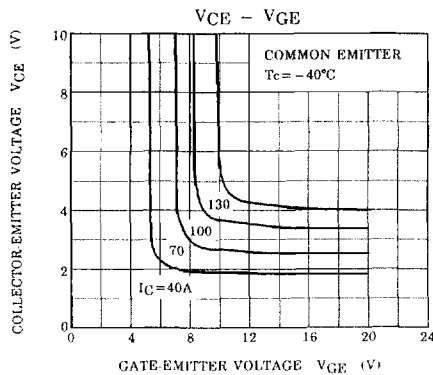
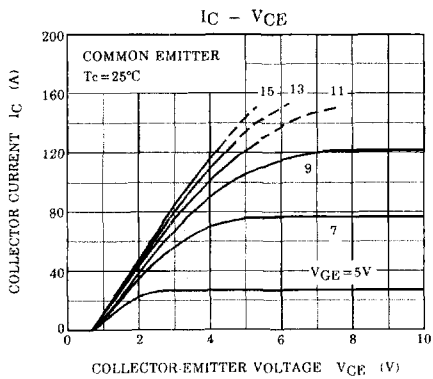


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GES}	$V_{GE} = \pm 20V, V_{CE} = 0$	—	—	± 100	nA
Collector Cut-off Current	I_{CES}	$V_{CE} = 400V, V_{GE} = 0$	—	—	10	μA
Gate-Emitter Cut-off Voltage	$V_{GE(OFF)}$	$I_C = 1mA, V_{CE} = 5V$	2	—	5	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 130A, V_{GE} = 12V$ (Pulsed)	—	5	8	V
Input Capacitance	C_{ies}	$V_{CE} = 10V, V_{GE} = 0, f = 1MHz$	—	1200	—	pF
Switching Time	Rise Time		—	0.7	2.0	μs
	Turn-on Time		—	0.9	2.2	
	Fall Time		—	1.7	4.0	
	Turn-off Time		—	2.0	5.0	
Thermal Resistance	$R_{th(j-c)}$	—	—	—	6.25	$^\circ C / W$

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