

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL IGBT

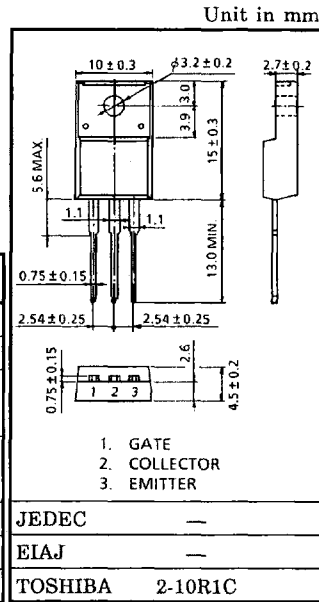
GT10G101

STROBE FLASH APPLICATIONS

- High Input Impedance
- Low Saturation Voltage : $V_{CE(sat)} = 8V$ (Max.) ($I_C = 130A$)
- Enhancement-Mode
- 20V Gate Drive

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V_{CES}	400	V
Gate-Emitter Voltage	V_{GES}	± 25	V
Collector Current	DC	I_C	10
	1ms	I_{CP}	130
Collector Power Dissipation	Ta = 25°C	P_C	2.0
	Tc = 25°C	P_C	30
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C
Screw Torque	—	0.6	N·m



Weight : 1.7g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GES}	$V_{GE} = \pm 25V, V_{CE} = 0$	—	—	± 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	$V_{CE(sat)}$	$I_C = 130A, V_{GE} = 20V$ (Pulsed)	—	5	8	V
Input Capacitance	C_{ies}	$V_{CE} = 10V, V_{GE} = 0, f = 1MHz$	—	1350	—	pF
Switching Time	Rise Time	 $V_{IN} : t_r \leq 100ns$ $t_f \leq 100ns$ Duty cycle $\leq 1\%$	—	0.1	0.5	μs
	Turn-on Time		—	0.15	0.5	
	Fall Time		—	4.0	6.0	
	Turn-off Time		—	4.5	7.0	
Thermal Resistance	$R_{th(j-c)}$	—	—	—	4.16	°C / W

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