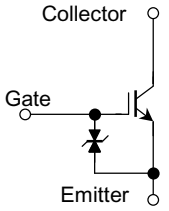
Preliminary

TOSHIBA Insulated Gate Bipolar Transistor
Silicon N Channel MOS Type

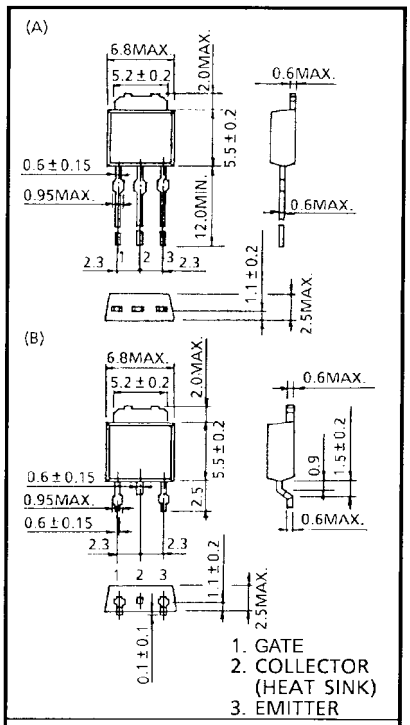
G T 5 G 1 0 2

Strobe Flash Applications

- 3rd Generation
- High input impedance
- Low saturation voltage
  : $V_{CE\ (sat)}$ = 8 V (max) (I_C = 130 A)
- Enhancement-mode
- 12 V gate drive



Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	(A) 2-7B5C (B) 2-7B6C

Weight : 0.36 g

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-emitter voltage		V_{CES}	400	V
Gate-emitter voltage	DC	V_{GES}	±20	V
Collector current	DC	I_C	5	A
	1 ms	I_{CP}	130	A
Collector power dissipation	Ta = 25°C	P_C	1.3	W
	Tc = 25°C	P_C	20	W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	−55~150	°C

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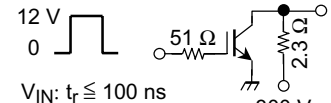
Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current		I_{GES}	V_{GE} = 20 V, V_{CE} = 0	—	—	10	μA
Collector cut-off current		I_{CES}	V_{CE} = 400 V, V_{GE} = 0	—	—	10	μA
Gate-emitter cut-off voltage		$V_{GE\ (OFF)}$	I_C = 1 mA, V_{CE} = 5 V	2	—	5	V
Collector-emitter saturation voltage		$V_{CE\ (sat)}$	I_C = 130 A, V_{GE} = 12 V (pulsed)	—	5	8	V
Input capacitance		C_{ies}	V_{CE} = 10 V, V_{GE} = 0, f = 1 MHz	—	1200	—	pF
Switching time	Rise time	t_r	 V_{IN}: $t_r \leqq 100$ ns, $t_f \leqq 100$ ns, Duty cycle ≦ 1%	—	0.7	—	μs
	Turn-on time	t_{on}		—	0.9	—	
	Fall time	t_f		—	1.7	—	
	Turn-off time	t_{off}		—	2.0	—	
Thermal resistance		$R_{th\ (j\text{-}c)}$	—	—	—	6.25	°C/W

This transistor is an electrostatic sensitive device. Please handle with caution.