TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL IGBT

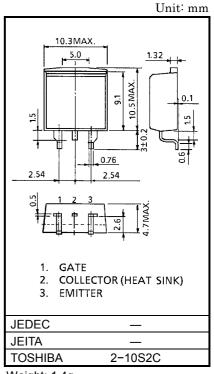
GT20G102(SM)

STROBE FLASH APPLICATIONS

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

MAXIMUM RATINGS (Ta = 25°C)

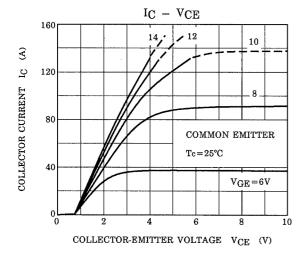
CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Emitter Voltage		V _{CES}	400	V	
Gate-Emitter Voltage		V_{GES}	±20	٧	
Collector Current	DC	IC	20	Α	
	1ms	I _{CP}	130		
Discipation	Ta = 25°C	PC	1.3	А	
	Tc = 25°C	PC	60		
Junction Temperature		Tj	150	°C	
Storage Temperature Range		T _{stg}	-55~150	°C	

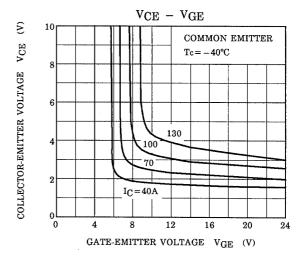


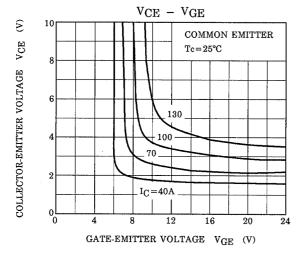
Weight: 1.4g

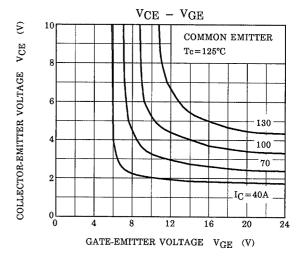
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

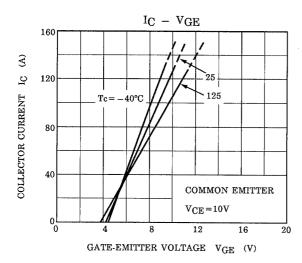
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Gate Leakage Current		I _{GES}	V _{GE} = ±20V, V _{CE} = 0	_	_	±100	nA
Collector Cut-off C	urrent	I _{CES}	V _{CE} = 400V, V _{GE} = 0	_	_	10	μA
Gate-Emitter Cut-off Voltage		V _{GE} (OFF)	I _C = 1mA, V _{CE} = 5V	2	_	5	V
Collector-Emitter Saturation 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	_	1850	_	pF
Switching Time	Rise Time	t _r	$\begin{array}{c c} 12V & & & & & \\ \hline 0 & & & 51\Omega & & \\ V_{IN}: t_r \leq 100 ns & & & \\ t_f \leq 100 ns & & 300V \\ Duty \ cycle \leq 1\% & & & \end{array}$	_	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)}	_	_	_	2.08	°C/W

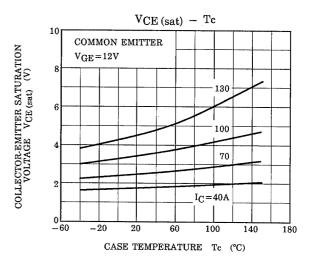




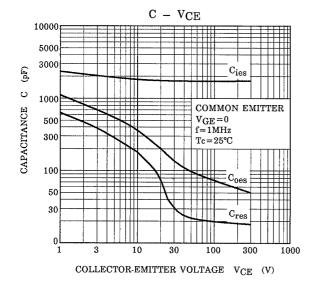


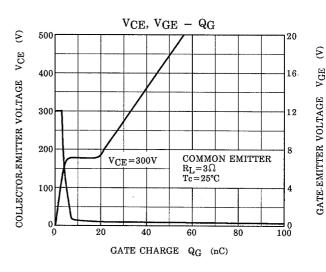


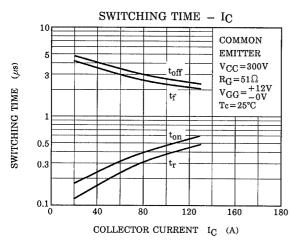


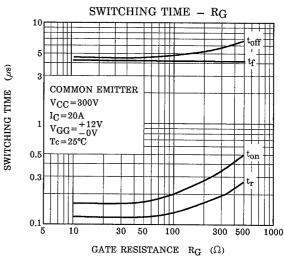


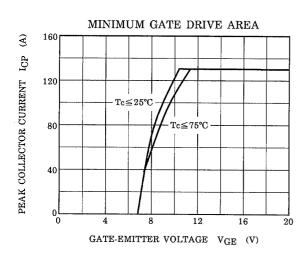
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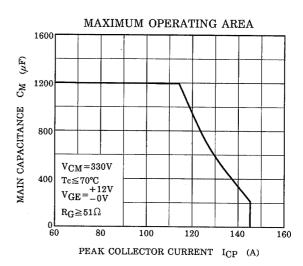












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