TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL IGBT

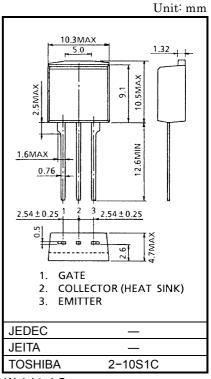
GT25G102

STROBE FLASH APPLICATIONS

- High Input Impedance
- Low Saturation Voltage : $V_{CE (sat)} = 8V (Max.) (I_C = 150A)$
- Enhancement-Mode
- 12V Gate Drive

MAXIMUM RATINGS (Ta = 25°C)

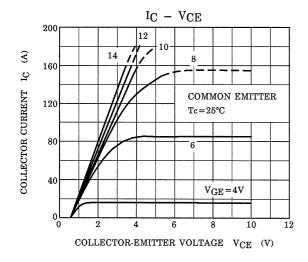
CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Emitter Voltage		V _{CES}	400	V	
Gate-Emitter Voltage		V _{GES}	±20	V	
Collector Current	DC	Ic	25	Α	
	1ms	I _{CP}	150		
Collector Power Dissipation	Ta = 25°C	PC	1.3	А	
	Tc = 25°C	PC	75		
Junction Temperature		Тј	150	°C	
Storage Temperature Range		T _{stg}	-55~150	°C	

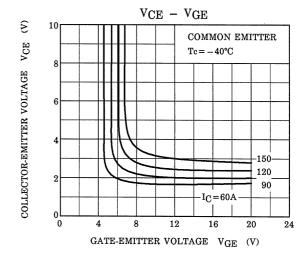


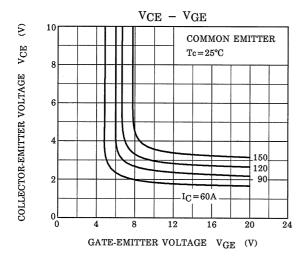
Weight: 1.5g

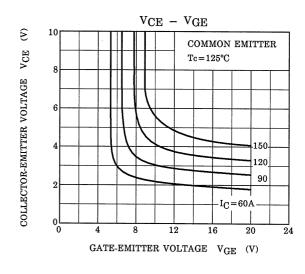
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

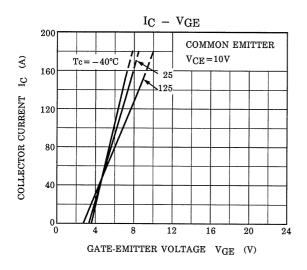
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Gate Leakage Cu	ırrent	I _{GES}	V _{GE} = ±20V, V _{CE} = 0	_	_	±100	nA
Collector Cut-off	Current	I _{CES}	V _{CE} = 400V, V _{GE} = 0	_	_	10	μA
Gate-Emitter Cut	-off Voltage	V _{GE} (OFF)	I _C = 1mA, V _{CE} = 5V	2	_	5	V
Collector-Emitter Saturation Voltage		V _{CE (sat)}	I _C = 150A, V _{GE} = 12V (Pulsed)	_	4	8	V
Input Capacitance		C _{ies}	V _{CE} = 10V, V _{GE} = 0, f = 1MHz	_	2600	_	pF
Switching Time	Rise Time	t _r	$\begin{array}{c c} 12V & & & & & \\ 0 & & & & & \\ VIN: t_r \leq 100 ns & & & \\ t_f \leq 100 ns & & 300V \\ Duty \ cycle \leq 1\% & & & \end{array}$	_	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)}	_	_	_	1.66	°C/W

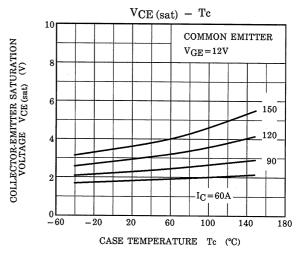




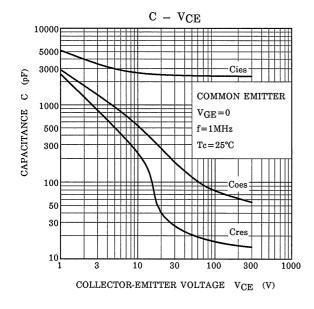


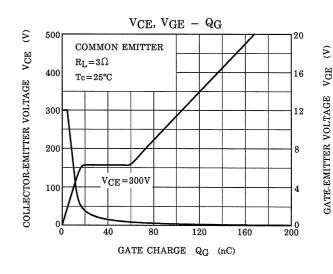


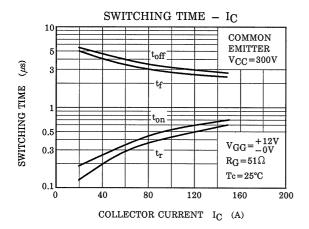


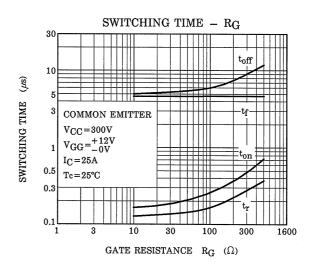


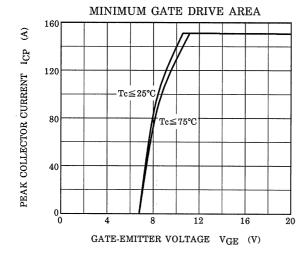
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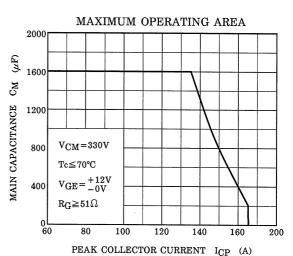












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