TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL IGBT

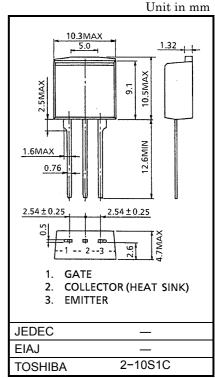
GT25G101

STROBE FLASH APPLICATIONS

- High Input Impedance
- Low Saturation Voltage : VCE (sat)=8V (Max.) (IC=170A)
- 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	Ι _C	25	A	
	1ms	I _{CP}	170		
Collector Power Dissipation	Ta=25°C	P _C	1.3	W	
	Tc=25°C	P _C	75		
Junction Temperature		Tj	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 Current		I _{GES}	V_{GE} =±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 =170A, V _{GE} =20V (Pulsed)	_	5	8	V
Input Capacitance		C _{ies}	V _{CE} =10V, V _{GE} =0, f=1MHz	_	2000	_	pF
Switching Time	Rise Time	t _r	$\begin{array}{c} 20V \\ 0 \\ V_{IN} : t_r \leq 100 \text{ns} \\ t_f \leq 100 \text{ns} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $	—	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

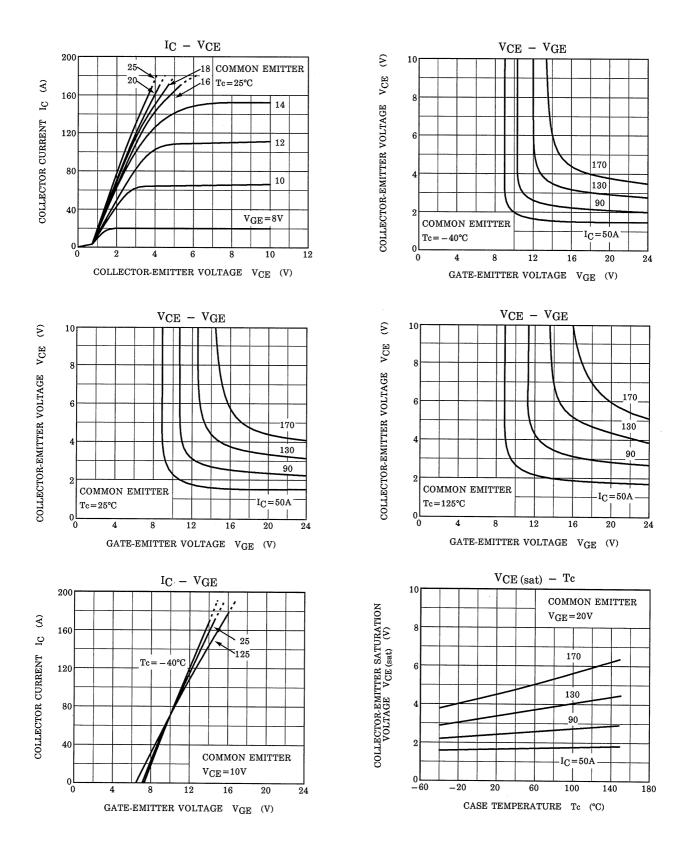
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