

GT25H101

INSULATED GATE BIPOLAR TRANSISTOR SILICON N CHANNEL IGBT

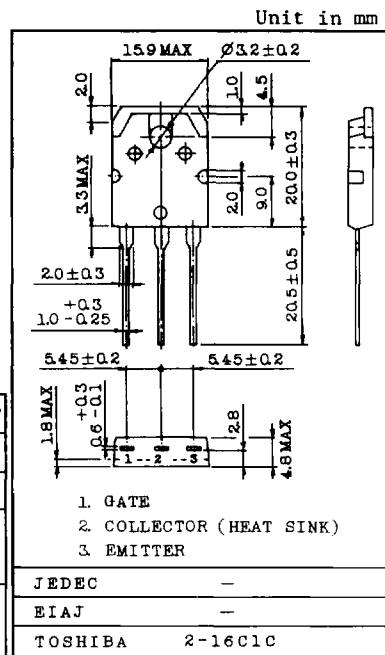
HIGH POWER SWITCHING APPLICATIONS.

MOTOR CONTROL APPLICATIONS.

- High Input Impedance
- High Speed : $t_f=1.0\mu s(\text{Max.})$
- Low Saturation Voltage : $V_{CE(sat)}=5.0V(\text{Max.})$
- Enhancement-Mode

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		V_{CES}	500	V
Gate-Emitter Voltage		V_{GES}	± 20	V
Collector Current	DC	I_C	25	A
	1ms	I_{CP}	50	
Collector Power Dissipation ($T_c=25^\circ\text{C}$)		P_C	150	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature		T_{stg}	-55~150	$^\circ\text{C}$



Weight : 4.6g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GES}	$V_{GE}=\pm 20V, V_{CE}=0$	—	—	± 500	nA
Collector Cut-off Current		I_{CES}	$V_{CE}=500V, V_{GE}=0$	—	—	1.0	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CES}$	$I_C=2mA, V_{GE}=0$	500	—	—	V
Gate-Emitter Cut-off Voltage		$V_{GE(off)}$	$I_C=25mA, V_{CE}=5V$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=25A, V_{GE}=15V$	—	3.5	5.0	V
Input Capacitance		C_{ies}	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	1800	—	pF
Switching Time	Rise Time	t_r		—	0.4	0.6	μs
	Turn-on Time	t_{on}		—	0.5	0.7	
	Fall Time	t_f		—	0.4	1.0	
	Turn-off Time	t_{off}		—	0.6	1.2	

