

INSULATED GATE BIPOLAR TRANSISTOR SILICON N-CHANNEL IGBT

GT8N101

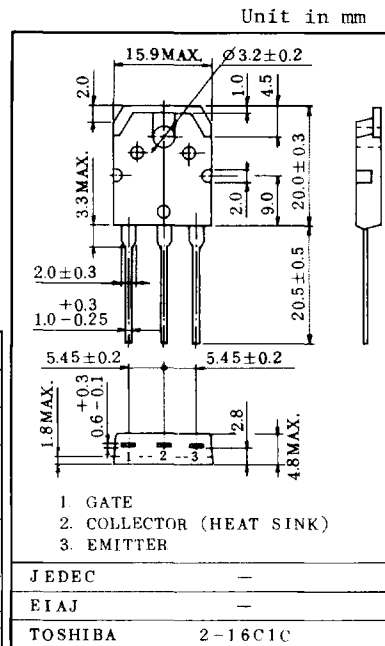
HIGH POWER SWITCHING APPLICATIONS.

MOTOR CONTROL APPLICATIONS.

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

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V_{CES}	1000	V
Gate-Emitter Voltage	V_{GES}	± 20	V
Collector Current	DC	I_C	A
	lms	I_{CP}	
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	100	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 4.6g

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

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}	$V_{CE} = 1000V, V_{GE} = 0$	—	—	1.0	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C = 2mA, V_{GE} = 0$	1000	—	—	V
Gate-Emitter Cut-off Voltage	$V_{CE(OFF)}$	$I_C = 8mA, V_{CE} = 5V$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 8A, V_{GE} = 15V$	—	3.0	5.0	V
Input Capacitance	C_{ies}	$V_{CE} = 10V, V_{GE} = 0, f = 1MHz$	—	800	—	pF
Switching Time	Rise Time		—	0.15	0.5	μs
	Turn-on Time		—	0.2	0.6	
	Fall Time		—	0.45	1.0	
	Turn-off Time		—	0.6	1.3	

