

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N CHANNEL MOS TYPE

GT40T101

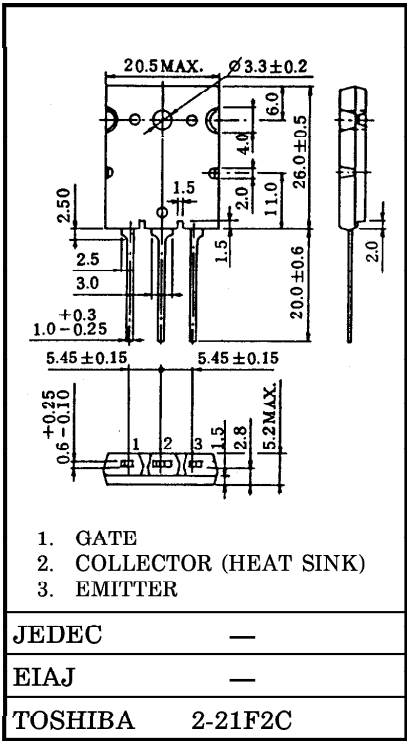
HIGH POWER SWITCHING APPLICATIONS.

Unit in mm

- Enhancement-Mode
- High Speed :  $t_f=0.4\mu s$  (Max.) ( $I_C=40A$ )
- Low Saturation :  $V_{CE(sat)}=5.0V$  (Max.) ( $I_C=40A$ )

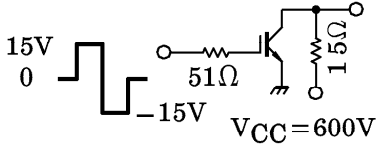
MAXIMUM RATINGS ( $T_a=25^{\circ}C$ )

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		$V_{CES}$	1500	V
Gate-Emitter Voltage		$V_{GES}$	$\pm 25$	V
Collector Current	DC	$I_C$	40	A
Collector Current	1ms	$I_{CP}$	80	A
Collector Power Dissipation	( $T_c=25^{\circ}C$ )	$P_C$	200	W
Junction Temperature		$T_j$	150	$^{\circ}C$
Storage Temperature Range		$T_{stg}$	$-55\sim 150$	$^{\circ}C$



Weight : 9.75g

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		$I_{GES}$	$V_{GE}=\pm 25V, V_{CE}=0$	—	—	$\pm 500$	nA
Collector Cut-off Current		$I_{CES}$	$V_{CE}=1500V, V_{GE}=0$	—	—	1.0	mA
Gate-Emitter Cut-off Voltage		$V_{GE(OFF)}$	$I_C=40mA, V_{CE}=5V$	3.0	—	6.0	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=40A, V_{GE}=15V$	—	4.0	5.0	V
Input Capacitance		$C_{ies}$	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	3600	—	pF
Switching Time	Rise Time	$t_r$		—	0.6	1.0	$\mu s$
	Turn-on Time	$t_{on}$		—	0.7	1.1	
	Fall Time	$t_f$		—	0.2	0.4	
	Turn-off Time	$t_{off}$		—	0.5	1.0	
Thermal Resistance		$R_{th(j-c)}$	—	—	—	0.625	$^{\circ}C/W$

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