

IGBT Transistor

GT50J101

600V / 50A

DATASHEET

OEM – Toshiba

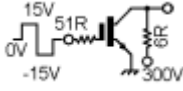
Source: Toshiba Databook 1995/96

MAXIMUM RATINGS (Ta=25°C)

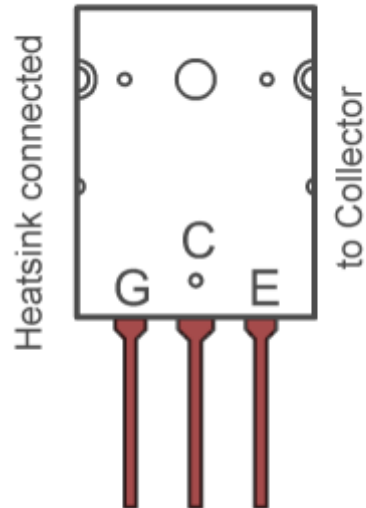
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	Vces	600	V
Gate-Emitter Voltage	Vges	+/-20	V
Collector Current	DC	IC	50
	1ms	Icp	100
Collector Power Dissipation	Pc	200	W
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-55~150	°C
Screw Torque	-	0.80	N*m

Source: Toshiba IGBT Databook 95/96

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	Iges	Uge=+/-20V, Vce=0	-	-	+500	nA
Collector Cut-off Current	Ices	Uce=600V, Uge=0	-	-	1.0	mA
Collector-Emitter Breakdown Voltage	U(br) CES	Ic=2mA, Uge=0	600	-	-	V
Gate-Emitter Cut-off Voltage	Uge (off)	Ic=50mA, Uce=5V	3.0	-	6.0	V
Collector-Emitter Saturation Voltage	Uce (sat)	IC=50A, Uge=15V	-	3.0	4.0	V
Input Capacitance	Cies	Uce=10V, Uge=0, f=1MHz	-	3500	-	pF
Switching Time	Rise Time		-	0.30	0.60	uS
	Turn-on Time		-	0.40	0.80	
	Fall Time		-	0.15	0.35	
	Turn-off Time		-	0.50	1.00	
Thermal Resistance	Rth (j-c)	-	-	-	0.625	°C/W

2-21F1C



EQUIVALENT CIRCUIT

