

IGBT Transistor

GT60M301

900V / 60A

DATASHEET

OEM – Toshiba

Source: Toshiba Databook 1995/96

MAXIMUM RATINGS (Ta=25°C)

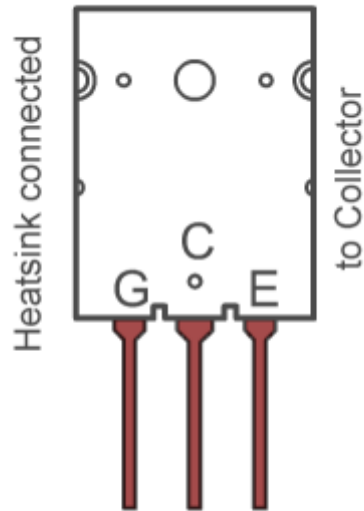
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	Vces	900	V
Gate-Emitter Voltage	Vges	+/-25	V
Collector Current	DC	IC	60
	1ms	Icp	120
Emitter-Collector Forward Current	DC	IECF	15
	1ms	IECFP	120
Collector Power Dissipation	Pc	200	W
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-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=+/-25V, Vce=0	-	-	+500	nA
Collector Cut-off Current	Ices	Uce=900V, Uge=0	-	-	1.0	mA
Collector-Emitter Breakdown Voltage	U(br) CES	Ic=2mA, Uge=0	900	-	-	V
Gate-Emitter Cut-off Voltage	Uge (off)	Ic=60mA, Uce=5V	3.0	-	6.0	V
Collector-Emitter Saturation Voltage	Uce (sat)1	IC=10A, Uge=15V	-	1.80	2.40	V
	Uce (sat)2	IC=60A, Uge=15V	-	2.30	3.40	
Input Capacitance	Cies	Uce=10V, Uge=0, f=1MHz	-	2700	-	pF
Switching Time	Rise Time	tr	-	0.25	0.60	uS
	Turn-on Time	ton	-	0.35	0.80	
	Fall Time	tf	-	0.25	0.40	
	Turn-off Time	toff	-	0.50	1.00	
Emitter-Collector Forward Voltage	VECF	IEC=15A, VGE=0	-	1.50	2.00	V
Reverse Recovery Time	trr	IF=15A, di/dt=-20A	-	0.70	2.50	uS
Thermal Resistance	Rth (j-c)	Transistor	-	-	0.625	°C/W
		Diode	-	-	4.00	

2-21F2C



EQUIVALENT CIRCUIT

