

IGBT Dual Transistor

MG180V2YS40

1700V / 180A

DATASHEET

OEM – Toshiba

Source: Toshiba Databook 1995/96

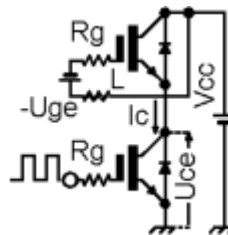
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	Vces	1700	V
Gate-Emitter Voltage	Vges	+/-20	V
Collector Current	DC	IC	180
	1ms	Icp	360
Forward Current	DC	If	180
	1ms	Ifm	360
Collector Power Dissipation	Pc	1800	W
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-40~125	°C
Isolation Voltage	Visol	4000 (AC 1min.)	V
Screw Torque (Terminal / Mounting)	-	3/3	N*m

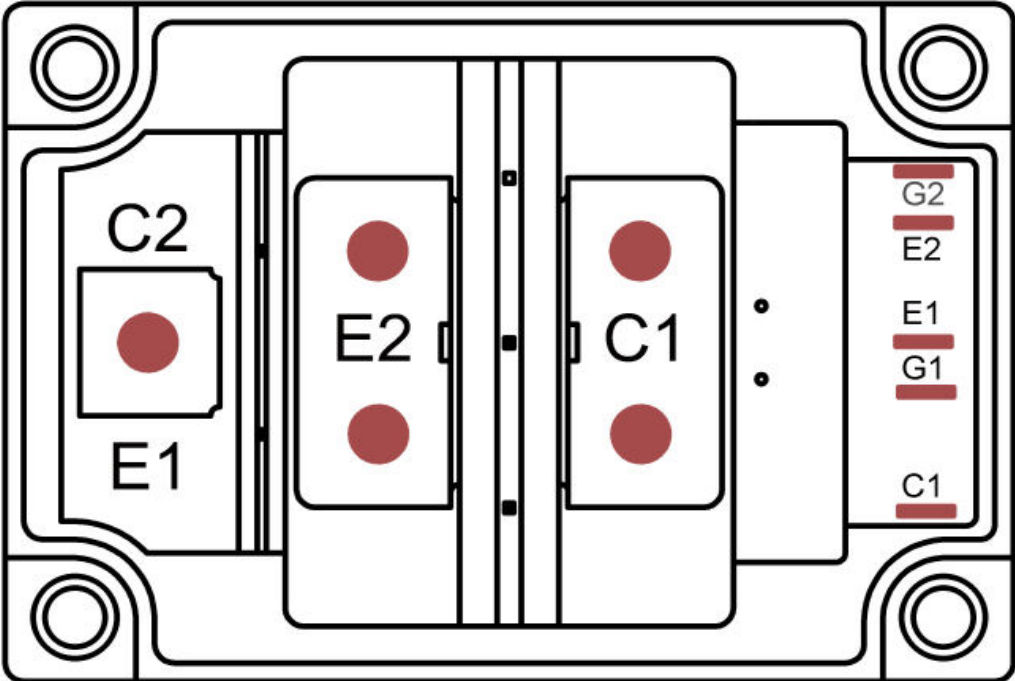
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	Iges	Uge=+/-20V, Vce=0	-	-	+150	nA
Collector Cut-off Current	Ices	Uce=1700V, Uge=0	-	-	3.0	mA
Gate-Emitter Cut-off Voltage	Uge (off)	Ic=180mA, Uce=5V	4.0	-	8.0	V
Collector-Emitter Saturation Voltage	Uce (sat)	IC=180A, Uge=15V	-	3.2	4.5	V
Input Capacitance	Cies	Uce=10V, Uge=0, f=1MHz	-	24600	-	pF
Switching Time	Turn-on Delay	td(on)	-	0.10	-	uS
	Rise Time	tr	-	0.10	-	
	Turn-on Time	ton	-	0.50	-	
	Turn-off Delay	td (off)	-	0.40	-	
	Fall Time	tf	-	0.50	1.50	
	Turn-off Time	toff	-	1.0	-	
Forward Voltage	Vf	If=180A, Uge=0	-	3.70	5.0	V
Reverse Recovery Time	trr	If=180A, Uge=-10V di/dt=1000A/uS	-	0.30	0.60	uS
Thermal Resistance	Rth (j-c)	Transistor	-	-	0.069	°C/W
		Diode	-	-	0.25	

Note 1



2-109D2A



EQUIVALENT CIRCUIT

