

TOSHIBA POWER TRANSISTOR MODULE SILICON NPN TRIPLE DIFFUSED TYPE

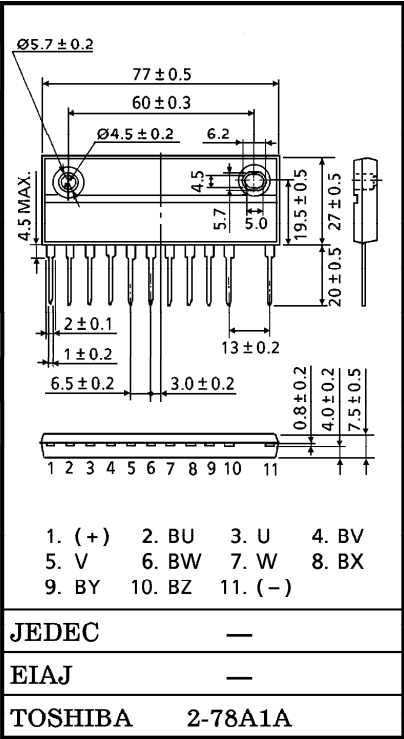
MP6501A

HIGH POWER SWITCHING APPLICATIONS

MOTOR CONTROL APPLICATIONS

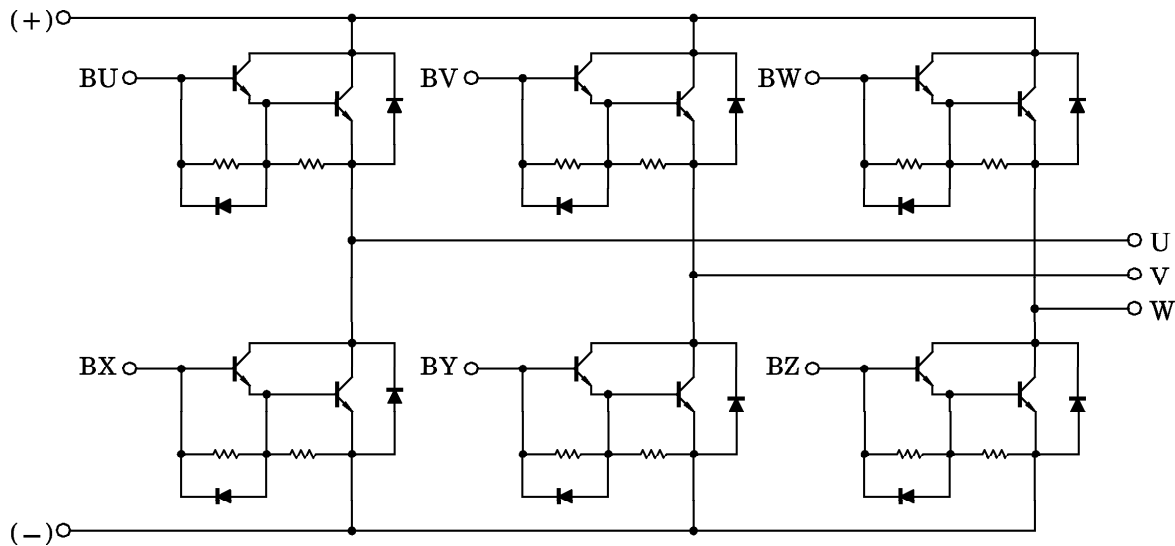
- The Electrodes are is Isolated from Case.
- 6 Darlingtong Transistor Built Into in 1 Package
- High Input Impedance
- High DC Current Gain
: $h_{FE}=100$ (Min.) ($I_C=15A$)
- Low Saturation Voltage
: $V_{CE(sat)}=2.1V$ (Max.) ($I_C=15A$)

Unit in mm



Weight : 44g

EQUIVALENT CIRCUIT



961001EAA2

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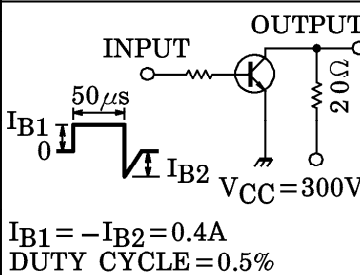
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● The information contained herein is subject to change without notice.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	500	V
Collector-Emitter Sustaining Voltage		$V_{CEX(SUS)}$	500	V
		$V_{CEO(SUS)}$	400	
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	15	A
	1ms	I_{CP}	30	
Forward Current	DC	I_F	15	A
	1ms	I_{FM}	30	
Base Current		I_B	1.0	A
Collector Power Dissipation		P_C	60	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-40~125	°C
Isolation Voltage		V_{Isol}	2500 (AC 1Min.)	V
Screw Torque		—	1.5	N·m

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-Off Current		I_{CBO}	$V_{CB} = 500V, I_E = 0$	—	—	1.0	mA
Emitter Cut-Off Current		I_{EBO}	$V_{BE} = 6V, I_C = 0$	—	—	100	mA
Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$	$I_C = 0.5A, L = 40mH$	400	—	—	V
DC Current Gain		h_{FE}	$V_{CE} = 5V, I_C = 15A$	100	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 15A, I_B = 0.4A$	—	1.3	2.1	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = 15A, I_B = 0.4A$	—	2.0	2.5	V
Switching Time	Turn-On Time	t_{on}	 INPUT OUTPUT 50μs $I_{B1} = 0, I_{B2} = 0.4A$ $V_{CC} = 300V$ 20Ω	—	0.6	1.0	μs
	Storage Time	t_{stg}		—	5	12	
	Fall Time	t_f		—	1.5	3.0	
Forward Voltage		V_F	$I_F = 15A, I_B = 0$	—	1.5	2.0	V
Reverse Recovery Time		t_{rr}	$I_F = 15A, V_{BE} = -2A$ $di/dt = 60A/\mu s$	—	—	0.7	μs
Thermal Resistance		$R_{th(j-c)}$	—	—	—	2.08	°C/W

