

## MPWM600-1 Military PWMA

### 1 Features of MPWM600-1 Military PWMA

- Wide input voltage: 20V~60V
- TTL Square wave input
- Max continuous input current 30A



67.0×50.0×16mm<sup>3</sup>

Weight: 109g

### 2 Scope of application of MPWM600-1 Military PWMA

DC motor drive control

Drive the reactive load

### 3 Descriptions of MPWM600-1 Military PWMA

MPWM600-1 PWMA is a PCB circuit board assembly of finished components with metal shell package module circuit. The amplifier accepts two TTL signals, mainly for PWM signal power amplification, the output of the amplified signal can be used as the motor drive signal. The module has the characteristics of simple structure, convenient debugging, improved reliability and relative low cost. With the development of modern electronic technology, the module is widely used in the applications such as servo structure, the motor control, drives the reactive load, drives the low frequency sonar, drives the piezoelectric transformation Equipment, off-line drive, CD welding control .

### 4 Technical Specifications of MPWM600-1 Military PWMA

Absolute Maximum Ratings	Recommended working conditions
Supply voltage +Vcc: 15V Supply voltage +Vs: 80V	Supply voltage +Vcc: 12V±1.2V Supply voltage +Vs: 20V~60V
Working frequency fo: 1KHZ~20KHZ Storage temperature T <sub>stg</sub> : -55℃~100℃ Junction Temperature (Tj) : 小于 150℃	Working frequency fo: 10KHZ Operating temperature (Tc) : -55℃~85℃

Form 2 Electrical characteristics

No.	Parameter	$-55^{\circ}\text{C} \leq T_c \leq 85^{\circ}\text{C}$	MPW600-1			Unit
			Min	Typical	Max	
1	Working Frequency	-	9.5	10	10.5	KHZ
2	Continuous working current	85°C or less (case temperature)	-	3	-	A
3	Vcc	-	10.8	-	13.2	V
4	Vs	-	20	-	60	V
5	Static current Icc	I <sub>o</sub> =0	-	-	50	mA
6	Operating temperature (Case temperature TC)	-	-55	-	+85	°C

### 5 Lead function description of MPWM600-1 Military PWMA

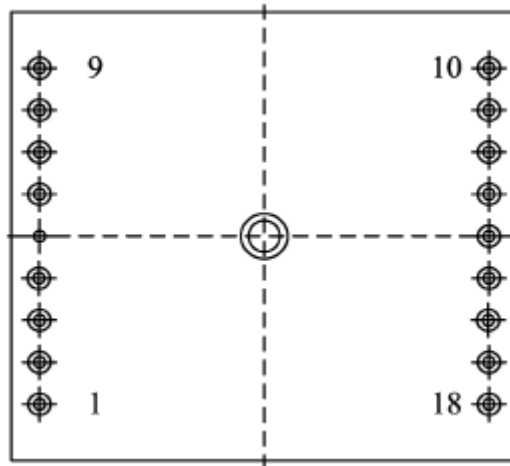


Fig 2 Bottom view

Form 3 Lead description

No.	Symbol	Function	No.	Symbol	Function
1	V in1+	Square wave input 1+	10	V <sub>cc</sub>	+12V
2	V in1-	Square wave input 1-	11	DIS	Protection

3	V in2-	Square wave input2-	12	OUT1	Output 1
4	V in2+	Square wave input 2+	13	OUT1	Output 1
5	NC	NC	14	OUT2	Output 2
6	NC	NC	15	OUT2	Output 2
7	GNDC	Case ground	16	VSS	VMOS source
8	NC	NC	17	GND	60V、12V ground
9	NC	NC	18	V <sub>s</sub>	Mptor power supply

## 6 Circuit block diagram of MPWM600-1 Military PWMA

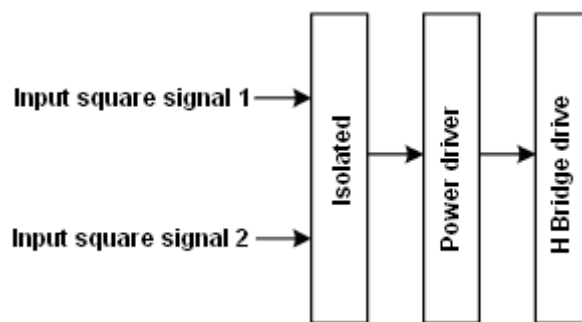


Fig 3 Circuit block diagram

## 7. Typical Connection Diagram of MPWM600-1 Military PWMA

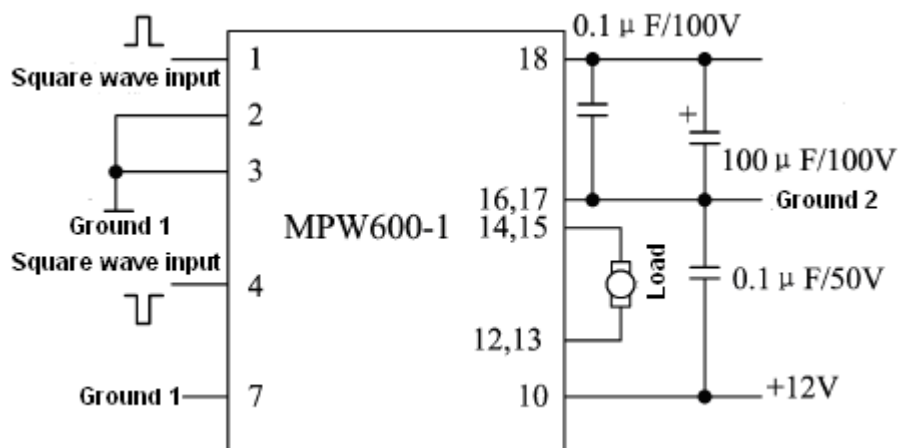


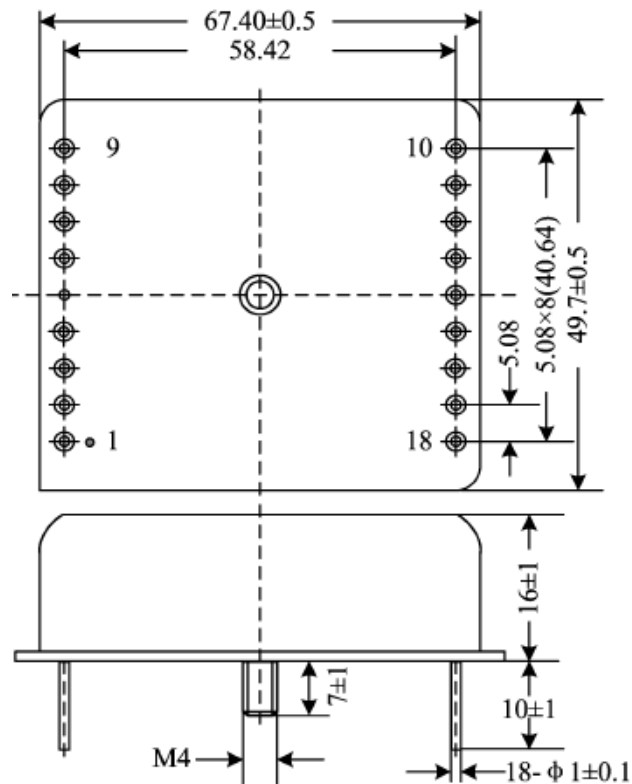
图 4 典型连接图

Power supply VS should have sufficient bypass capacitors to ensure proper operation, otherwise it may be unstable and reduce efficiency, and the output may be oscillated. Vcc power supply should be connected a 0.1 $\mu$  F/50V ceramic capacitor with GND, Vs power supply should be connected a 0.1 $\mu$  F/100V ceramic capacitor and 100 $\mu$  f/100V Tantalum capacitor with GND, All bypass capacitors should be connected as close as possible to the corresponding power supply root.

Pin 11 is protection terminal , users can connect with external protection circuit according to the control requirements. When the pin connect with high voltage(>2.7V) ,No output for protection When the pin is suspended, it works properly.

## 8. Package Specifications (Fig 5, Unit mm) of MPWM600-1

### Military PWMA



Application notes please refer to the appendix, must read it carefully