

The diagram shows a motor speed control circuit. A 12V DC source (V1) is connected to a motor (M1). The motor's other terminal is connected to the drain of a MOSFET (Q1: MDP12N50F). The MOSFET's source is connected to ground. The MOSFET's gate is driven by a PWM signal (indicated by a red arrow) through a network of resistors (R1: 330Ω, R2: 6.8kΩ, R3: 6.8kΩ) and a capacitor (C1: Cgs). The MOSFET is also labeled Q1: MMBT3906. A diode (Q2: MMBT3906) is connected in parallel with the MOSFET's drain-source path to provide a freewheeling path for the motor's inductive current. The diode's anode is connected to the MOSFET's drain, and its cathode is connected to ground. The diode is also labeled Q2: MDP12N50F.

- 素子の型番

素子	型番/仕様	DataSheet
MOSFET	MDP12N50F	<a href="http://www.yztdz.com/Down/pdf/MDF12N50F.pdf">http://www.yztdz.com/Down/pdf/MDF12N50F.pdf</a>
抵抗	6.8k $\Omega$ 330 $\Omega$	
トランジスター	MMBT3906	<a href="http://akizukidenshi.com/catalog/g/gI-05967/">http://akizukidenshi.com/catalog/g/gI-05967/</a>

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