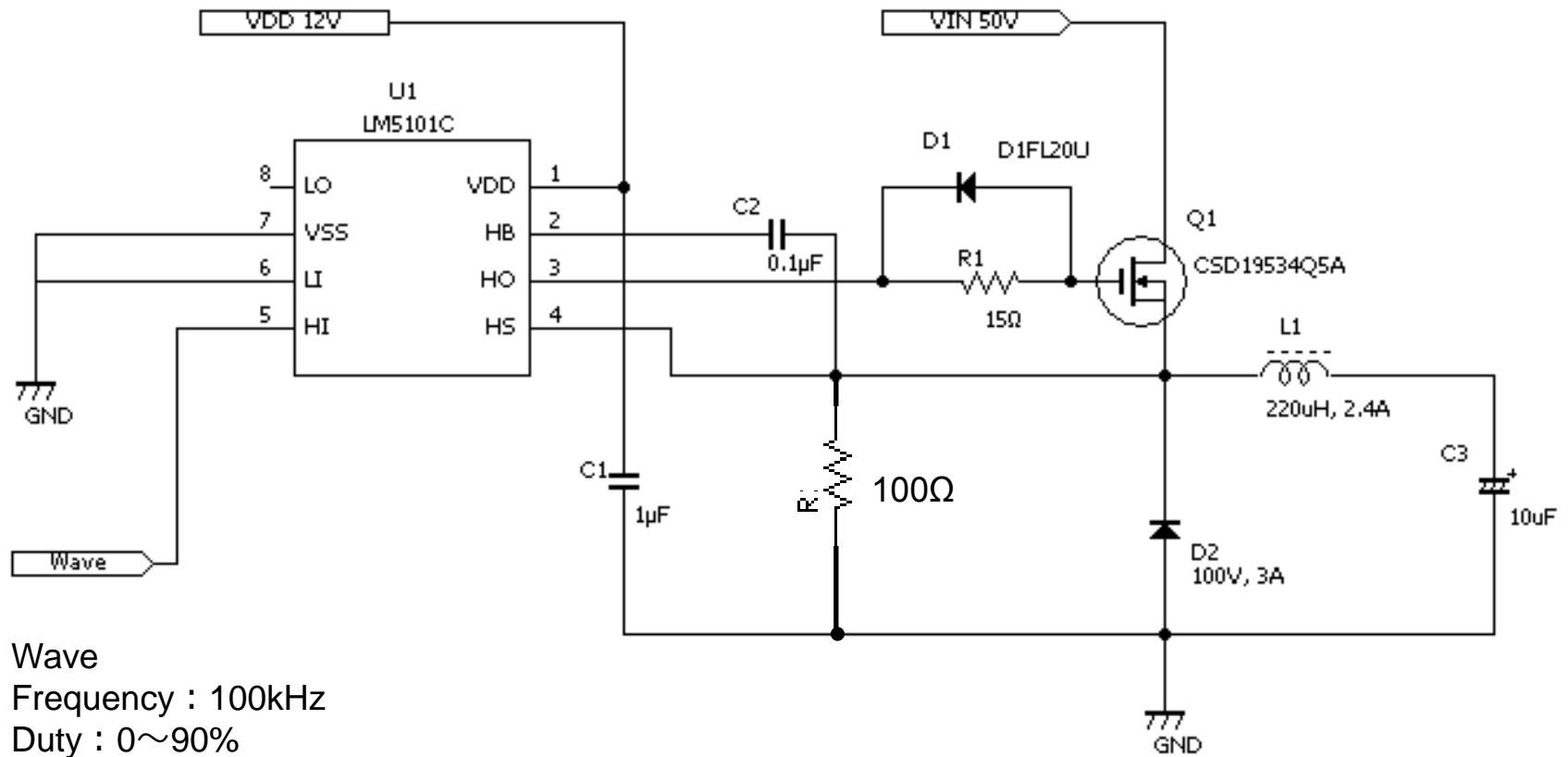


# LM501C circuit diagram

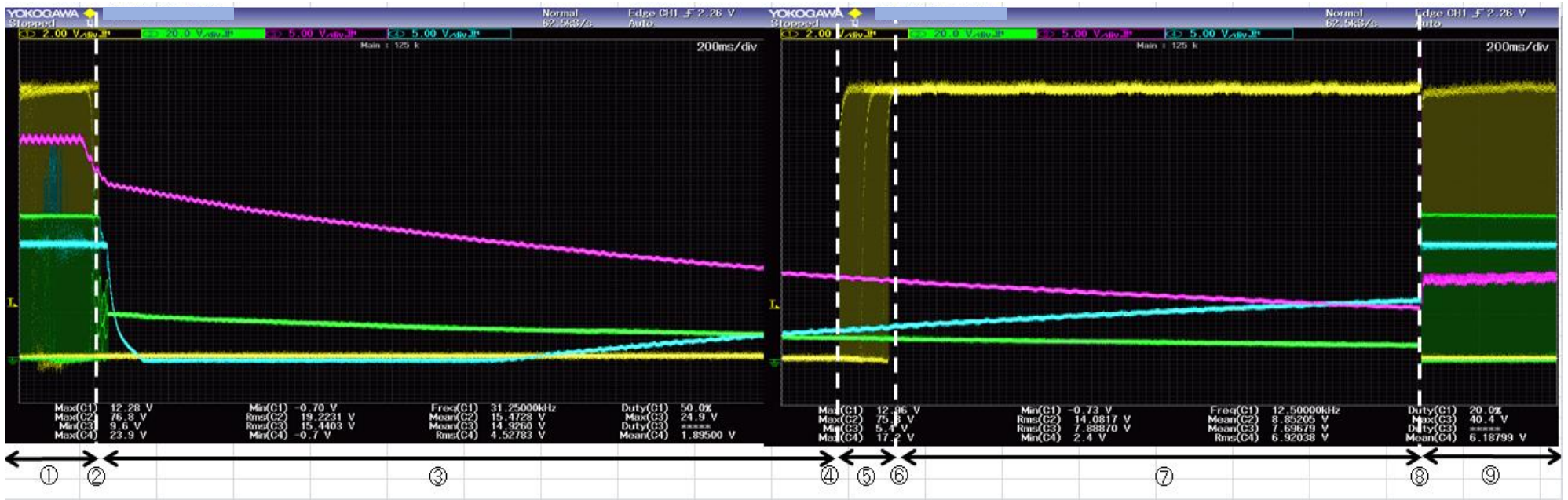


Wave

Frequency : 100kHz

Duty : 0~90%

# LM501C Measured waveform



Measurement points

- CH1 : HI
- CH2 : HO
- CH3 : Vout
- CH4 : C2 Voltage (Differential probe)

## <Conditions>

- ① normal operation.
- ② Fan stop instruction = No instruction to HI (0 V).
- ③ Stop period.
- ④ Resume instruction to HI.
- ⑤ HI is instructed but HO is stopped (the capacitor at both ends of C2 is not fully charged). Therefore, the circuit judges that the command voltage is insufficient, and the PWM width to HI increases steadily (PWM: 0% to increase steadily).
- ⑥ The instruction to HI finally becomes PWM 100% (full ON).
- ⑦ Since the charge of C2 is still insufficient, HO does not operate.
- ⑧ Voltage sufficient to operate C 2 is charged and HO also starts operation.
- ⑨ After normal operation.

## <Problems>

- Response delay occurs
- Since PWM 100% is applied, input voltage = output voltage is applied although it is instantaneous.

Is it not working when input voltage and output voltage are close?