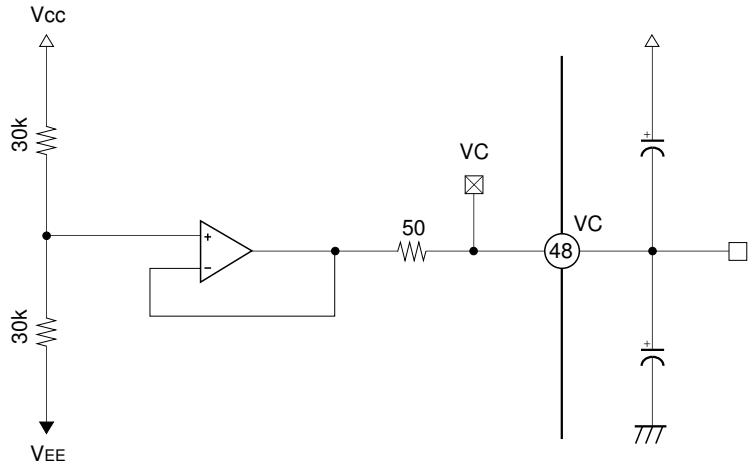
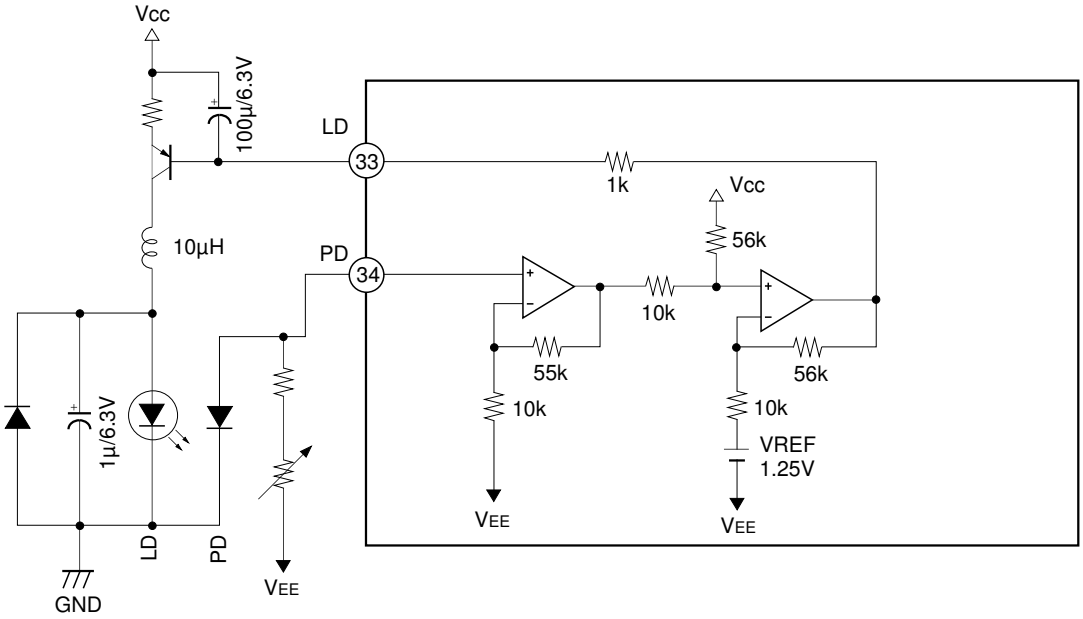
Center Voltage Generation Circuit

(Single voltage application; Connect to GND when it's positive/negative dual power supplies.)
Maximum current is approximately ±3mA. Output impedance is approximately 50Ω.



APC Circuit

When the laser diode is driven with constant current, the optical output possesses large negative temperature characteristics. Therefore, the current must be controlled with the monitor photo diode to ensure the output remains constant.



APPLICATION CIRCUIT

1) +5V Single Power Supply for P-sub Laser Diode

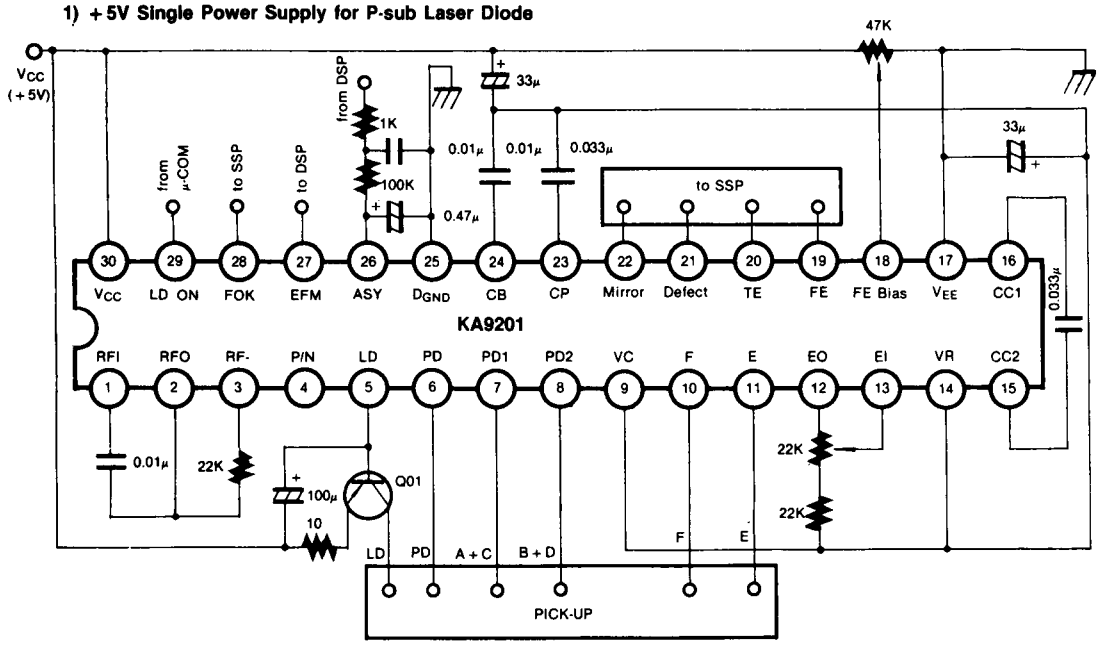


Fig. 3

2) +5V Single Power Supply for N-sub Laser Diode

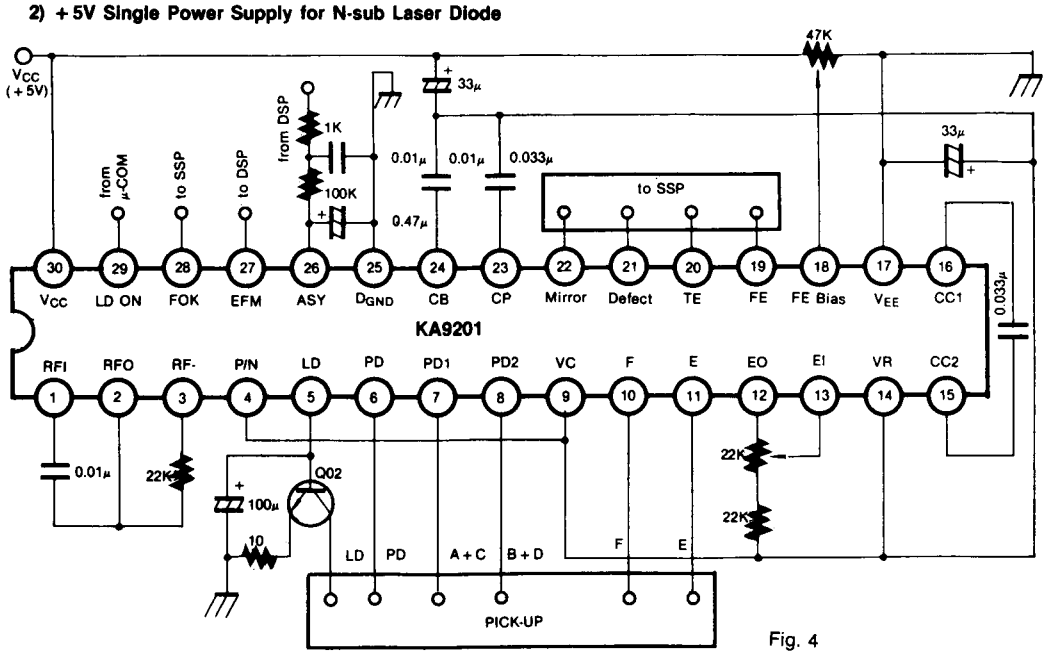


Fig. 4

APPLICATION CIRCUIT

3) ± 5V Split Power Supply for P-sub Laser Diode

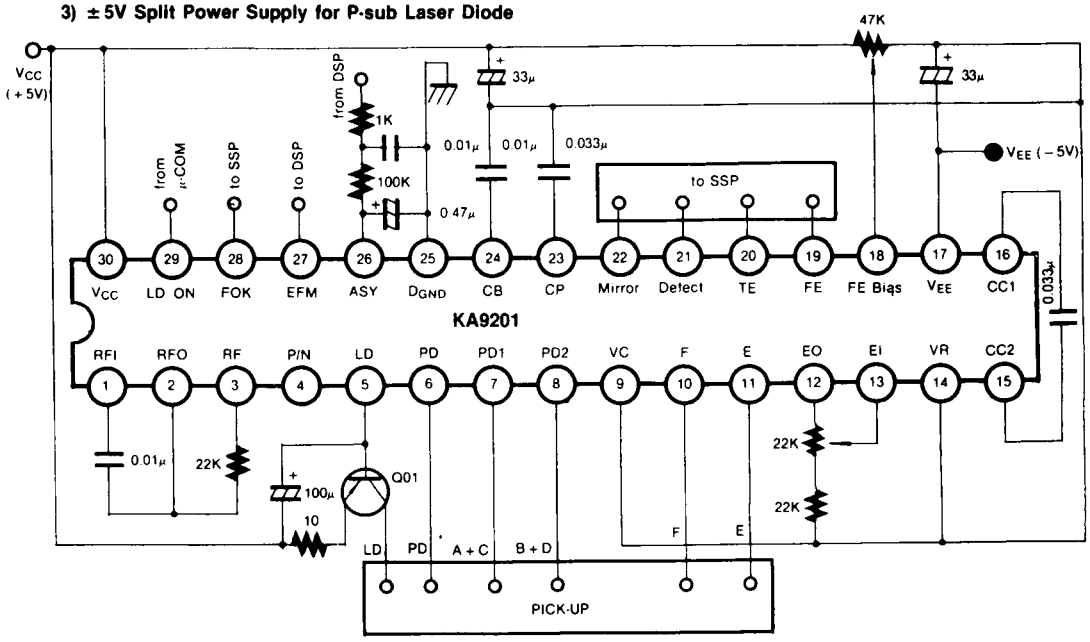


Fig. 5

4) ± 5V Split Power Supply for N-sub Laser Diode

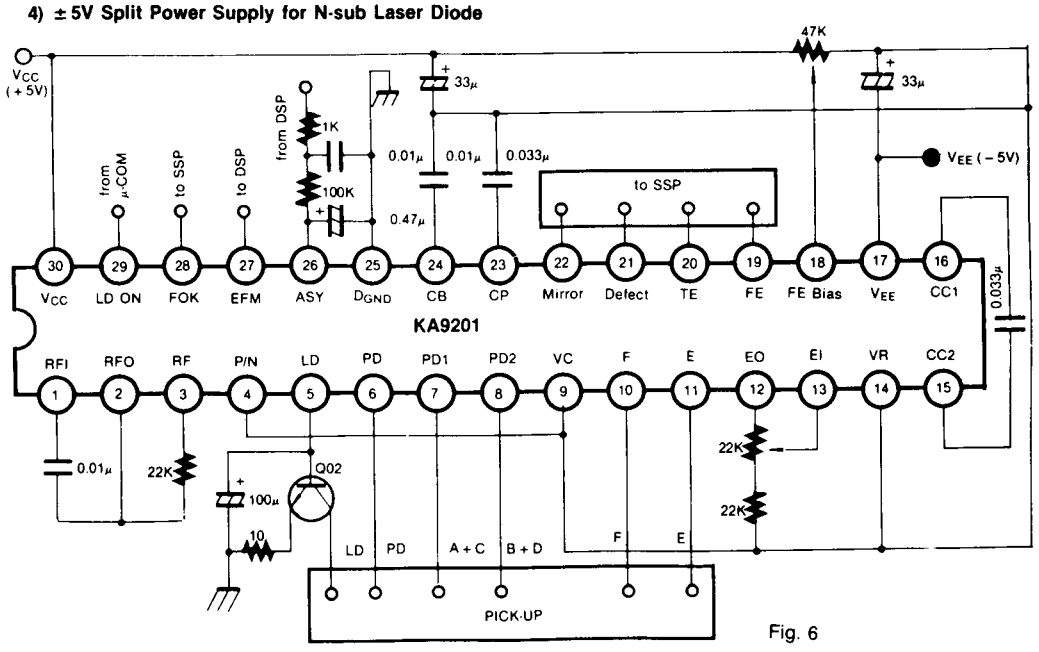
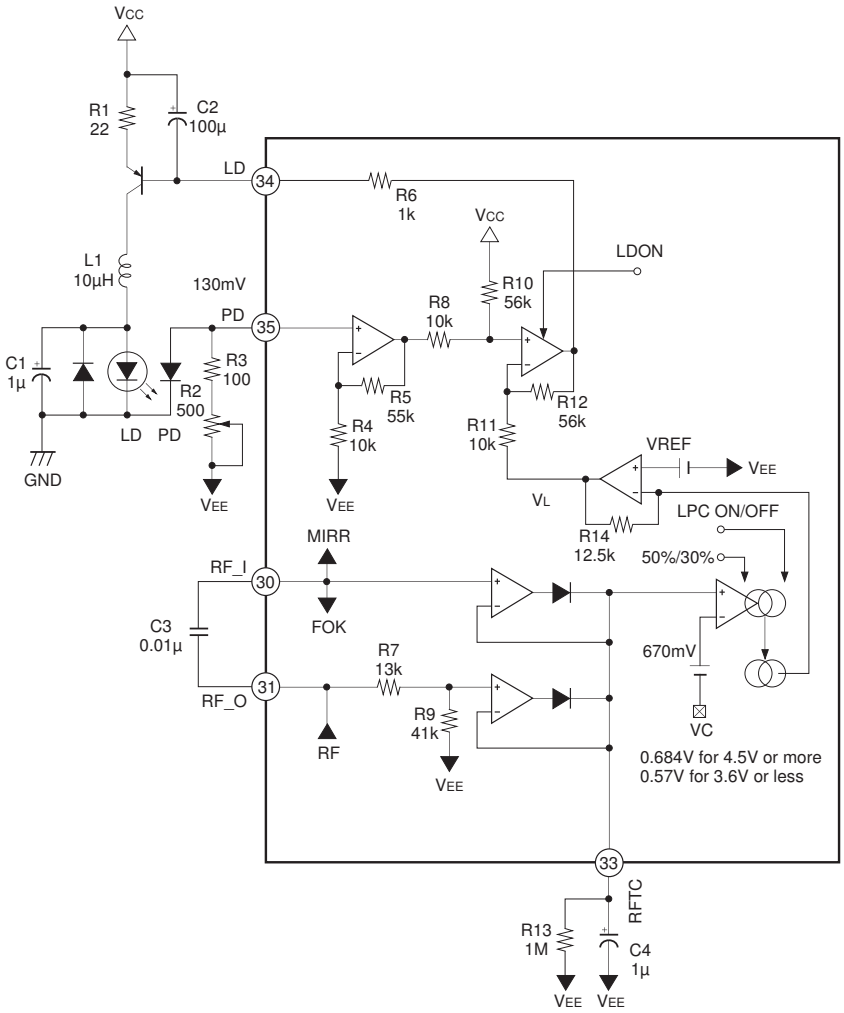


Fig. 6

APC & Laser Power Control



• **APC**

When the laser diode is driven by a constant current, the optical power output has extremely large negative temperature characteristics.

The APC circuit is used to maintain the optical power output at a constant level.

The laser diode current is controlled according to the monitor photodiode output.

• **Laser power control**

The RF level is stabilized by attaching an offset to the APC V_L and controlling the laser power in sync with the RF level fluctuations.

The RF_O and RF_I levels are compared and the larger of the two is smoothed by the RFTC's external CR.

This signal is then compared with the reference level.

The laser power is controlled by attaching an offset to V_L according to the results of comparison with the reference level.

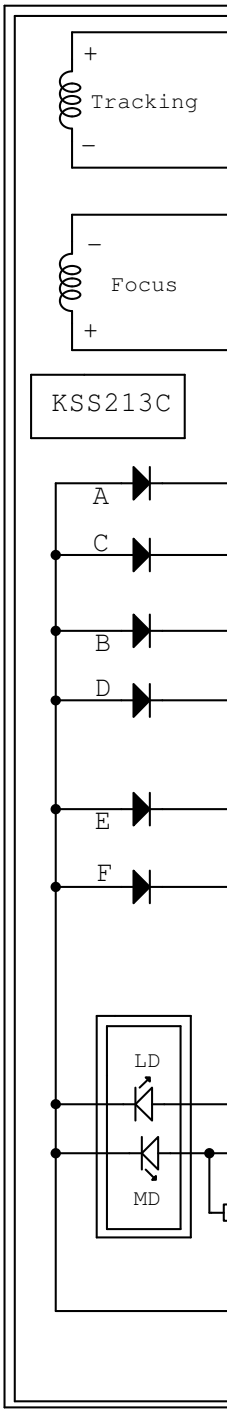
The reference level is set to 0.57V for the power supply of 3.6V or less and to 0.684V for 4.5V or more.

LPC ON/OFF and LD ON/OFF control is performed with commands.

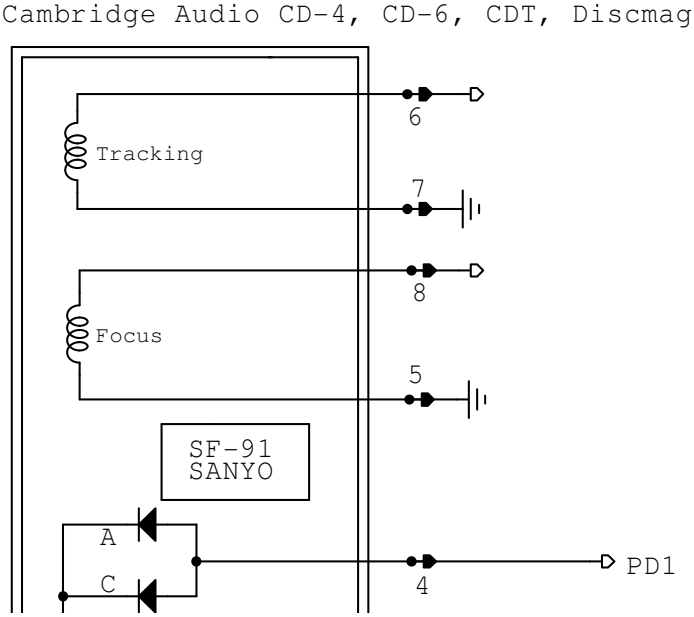
The laser power control limit can also be switched between ±50% and ±17% with commands.

LPC	LPCL	V_L variable range
OFF	—	Approximately 1.27V
ON	±50%	Approximately 1.27V ± 625mV
ON	±30%	Approximately 1.27V ± 375mV

TEAC VRD



Cambridge Audio CD-4, CD-6, CDT, Discmagic



Abweichung
- LD und a
- Elko 1uF
- PNP-Tran