

- Constant voltage, constant current circuit for PBA series -

■ Circuit

PBA300F ~ 1500F and 1500T, example circuit for Constant voltage constant current circuit is shown below.

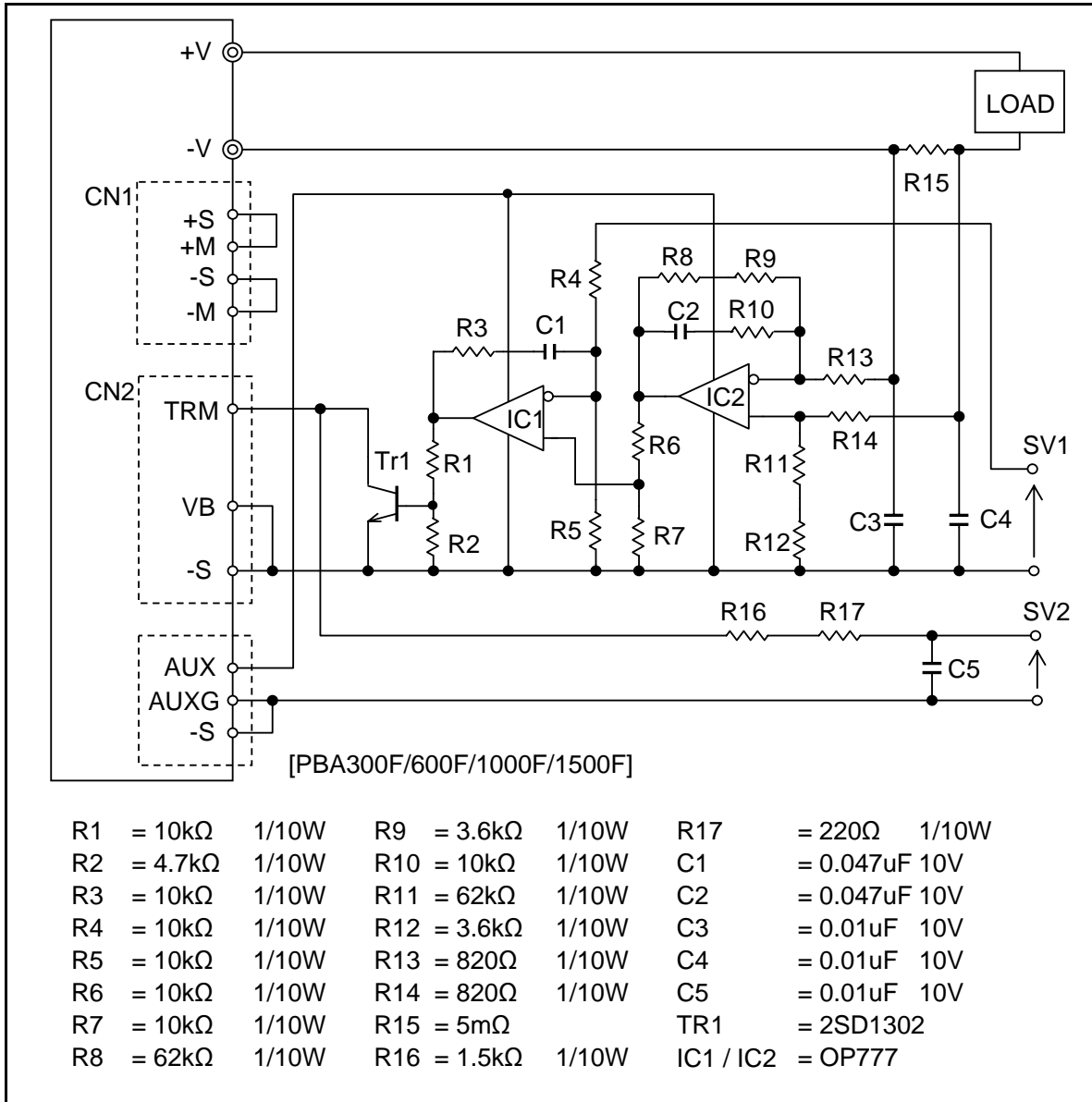


Fig1. Constant voltage constant current circuit

■ Explanation of Operation

SV1 and SV2 are terminals to control output current and output voltage. In the circuit shown in Fig1, output current and output voltage can

be adjusted simply by signal voltage (SV1 and SV2). If signal voltage/SV1 is 4V, output current would be 10A. And, if signal voltage/SV2 is 5V, output voltage would be rated output voltage.

To use as constant current source, TRM terminal is utilized for output voltage adjustment. If the output current increases, the voltage of the TRM terminal shall be decreased. Once output voltage decreases, the output current also decreases. Therefore, the output current will be kept constant.

R15 is shunt resistor, and the output current is converted into the voltage. After this voltage is amplified with differential amplifier circuit with IC2, and is controlled as the negative feedback.

■ **Note**

1. Use shunt resistor for R1, and power rating should be considered.
2. Make sure CN1 and CN2 are connected correctly.
3. If CN2 is unconnected, output voltage will generate rated voltage.
4. Do not remove any wiring during operation.
5. PG alarm will output, if output voltage reaches around 10% of rated voltage or less.
6. Evaluate under end-use condition sufficiently before using.

■ **Characteristic**

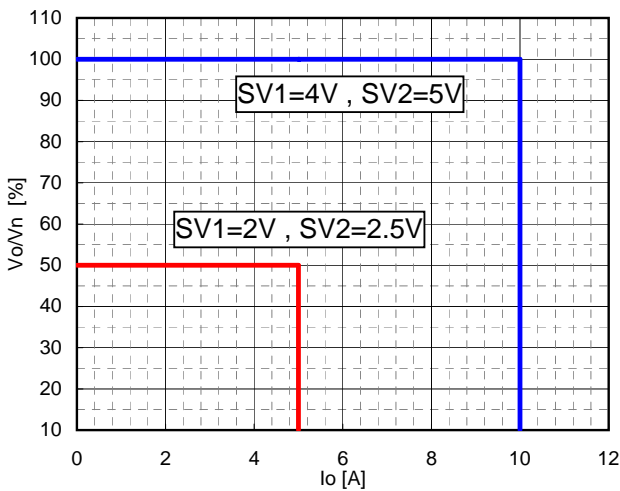


Fig2.1 Vo - Io

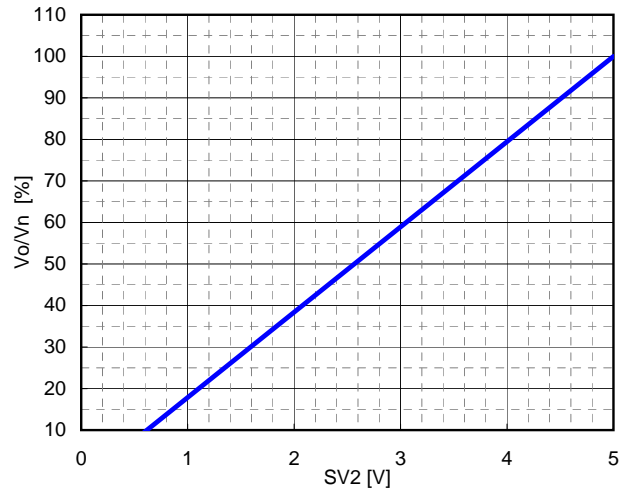


Fig2.2 Vo - SV2

- *Vn : Rated output voltage
- *Vo : Adjusted output voltage
- *Io : output current