Series Circuits

SC7179P
Technical Document

1. Introduction

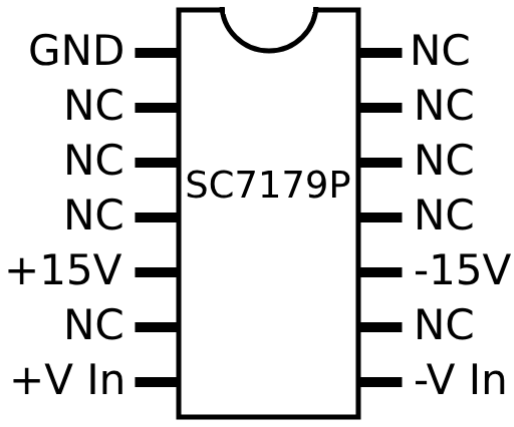
This document provides the technical specifications for the Series Circuits SC7179P, which is designed to be a drop-in replacement for the obsolete TA7179P Dual ±15V Voltage Regulator. The SC7179P utilizes two separate voltage regulators on a PCB, as a result this does not mimic the exact functionality of the TA7179P, as there are no adjustment or sense inputs. However, the voltage regulators used are modern and much more reliable, thereby providing an impressively stable ±15V output while fitting the same DIP-14 footprint and pinout of the TA7179P. This provides a high level of compatibility with existing circuits that use the TA7179P.

2. Description

The SC7179P employs two voltage regulators, one for the +15V rail and one for the -15V rail. Each voltage regulator has internal short circuit protection, current limiting, and thermal shutdown, making them extremely durable. Although the maximum output current of 100mA per rail may seem low, this is the same as the TA7179P, and almost all TA7179P designs incorporated additional transistors in their design to handle larger current demands. The PCB is designed to route the pins of these regulators to match the pin configuration of the TA7179P, providing a direct drop-in replacement.

3. Pin Configuration

Pin Labels	Description
+15V	+15V Out
-15V	-15V Out
+ V In	Positive Voltage In
- V In	Negative Voltage In
NC	No Connect
GND	Ground



4. **Electrical Characteristics**
    - **Typical DC Output Voltage:** ±15V
    - **Line Regulation**:
        - 300mV (V_i = ±17.5V to ±30V)
        - 250mV (V_i = ±20V to ±30V)
    - **Load Regulation**:
        - 150mV (I_O = 1mA to 100mA)
        - 75mV (I_O = 1mA to 40mA)
    - **Output Noise**: 90µV
    - **Dropout Voltage**: 1.7V
    - **Package Type**: PCB

5. **Absolute Maximum Ratings**
    - **Maximum DC Input Voltage**: ±35V
    - **Maximum Output Current**: 100mA (per rail)
    - **Maximum Output Voltage Deviation:** ±4%
    - **Storage Temperature**: -65°C to +150°C
    - **Operating Temperature**: 0°C to +125°C

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