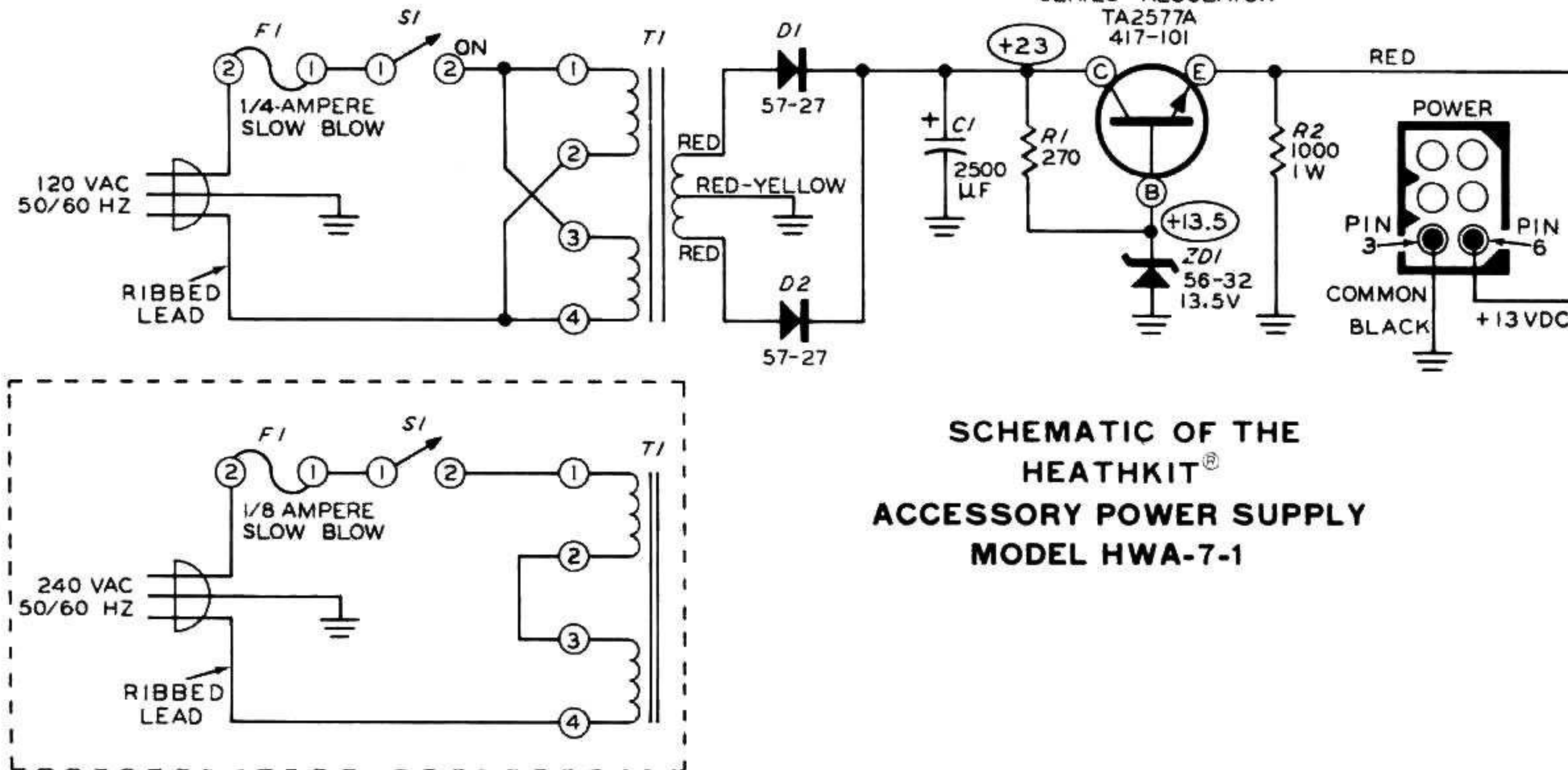


CIRCUIT DESCRIPTION

Refer to the Schematic Diagram while you read the "Circuit Description."

The 120 VAC or 240 VAC line voltage is applied through fuse F1 and Power On-Off switch S1 to the primary winding of power transformer T1. From the secondary winding, the voltage is applied to silicon diodes D1 and D2. These diodes operate as a full-wave rectifier circuit. The DC voltage from D1 and D2 is then filtered by electrolytic capacitor C1 and is applied to series regulator transistor Q1. This transistor is connected in an emitter follower configuration, and filters any input voltage fluctuations to maintain the constant DC output voltage.

The power supply load resistance consists of resistor R2 which is in parallel with the external load. This resistance is connected between the emitter of transistor Q1 and ground. The operating point of the transistor is determined by zener diode ZD1, which has its bias determined by resistor R1. The DC output voltage is connected to the twisted-pair cable for convenience in placing the Accessory Power Supply away from its load.



**SCHEMATIC OF THE
HEATHKIT®
ACCESSORY POWER SUPPLY
MODEL HWA-7-1**