

#### IV. Switch-On in the Wide Range Power Supply (90 Vac to 270 Vac) (application circuit 2)

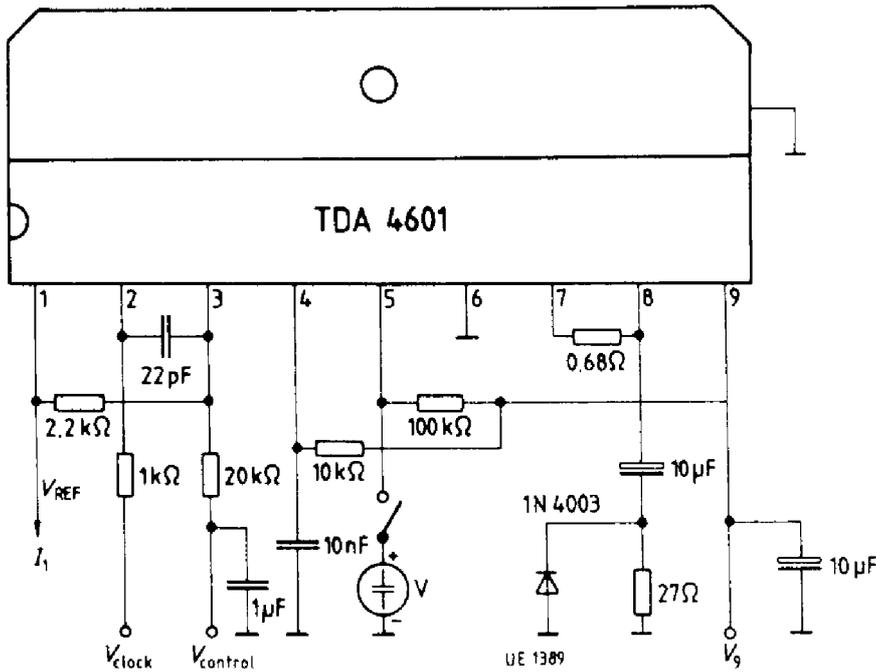
Self-oscillating flyback-converters designed as wide range power supplies require a power source independent of the rectified line voltage for TDA 4601. Therefore the winding polarity of winding 11/13 corresponds to the secondary side of the flyback converter transformer. Start-up is not as smooth as with an immediately available supply voltage, because TDA 4601 has to be supplied by the start-up circuit until the entire secondary load has been charged. This leads to long switch-on times, especially if low line voltages are applied.

However, the switch-on time can be shortened by applying the special start-up circuit (dotted line). The uncontrolled phase of feedback control winding 15/9 is used for activating purposes. Subsequent to activation, the transistor T1 begins to block when winding 11/13 generates the current supply for TDA 4601. Therefore, the control circuit cannot be influenced during operation.

#### Pin Functions

Pin No.	Function
1	$V_{REF}$ output
2	Zero passage identification
3	Input control amplifier, overload amplifier
4	Collector current simulation
5	Connection for additional protective circuit
6	Ground (rigidly connected to substrate mounting plate)
7	DC output for charging coupling capacitor
8	Pulse output - driving of switching transistor
9	Supply voltage

Test and Measurement Circuit 1



Test Diagram: Overload Operation

