

TECHNICAL DESCRIPTION

This is a kind of intergral energy saving lamp that is composed of a piece of energy saving tube and an electronic ballast.

RECTIFICATION

Rectifier converts power supply from AC to DC and also it is a full wave bridge rectifier with large filter capacitor(s) to protect the circuit against line transients. It also attenuates any EMI (Electro Magnetic Interference) noise fenerated by the high frequency source that feeds the tube.

INVERTER

Inverter changes the DC supply into high frequency AC. It employs the half bridge-voltage fed topology for inverting. It consists of two transistors connected in series across the output of the rectifier circuit. A train of pulses is created for voltage and current by this inverter switch circuit. The power switch is controlled by a small saturabe core transformer.

OUTPUT

The energy saving tube is the load of output section. It is in series with a LC resonance circuit. It feeds back the high frequency through the control circuit to synchronise the inverter frequency.

The LC resonance circuit provides the high voltage which strike the tube during startup. Once the tube is on, the LC resonance circuit will generate the tube working voltage which is less than the voltage of startup.