TECHNICAL DESCRIPTION

This is a kind of integral energy saving lamp that is composed of a piece of energy saving tube and 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 (Electromagnetic Interference) noise generated 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-saturated core transformer.

*OUTPUT

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

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