LAMP DIMMER

Traic based Indecent lamp dimmer is a simple circuit doesn’t required additional power supply, works directly with 110V AC or 230V AC.

It is a low cost dimmer circuit for adjusting the light brightness of incandescent, Halogen Lamp, Light Bulb load up to 250 W.

- Input supply: 230 VAC or 110 VAC
- Output: 250 W
- Triac controlled
- On board Potentiometer for adjusting level
- Power Battery Terminal (PBT) for easy input / output connection
- Four mounting holes of 3.2 mm each
- PCB dimensions 40 mm x 34 mm

CIRCUIT DESCRIPTION:
This kit consists of BT 136 Triac, resistors and capacitor. CN1 connector is for Load connections and CN2 connector for power supply connections.

BT136: It is a sensitive gate Triac, used in general purpose bidirectional switching and phase control applications where high sensitivity is required.

DB3: It is a DIAC that functions as a trigger diode with a fixed voltage reference. It can be used in conjunction with Triac for simplified gate control circuits or as a starting element in fluorescent lamp ballasts

WORKING:
This kit is used as a Light dimmer. It is used to adjust the brightness of the Halogen Lamp, Light Bulb up to 250 W. A power supply of 230 or 110 VAC is supplied to the kit at CN 2 connector and a light bulb is connected at the CN 1 connector. Using the POT we can adjust the brightness of the bulb.

APPLICATIONS:
It is used to adjust the brightness of incandescent, halogen lamp, light bulb up to 250 W.
110 VAC - USE R1
230 VAC - OMIT R1

P1
500K POT

R1 220K

Q1 BT136

R2 2.2K

Q2 DB3

C1 0.15uF/275VAC

CN1 AC LOAD

CN2 AC INPUT
<table>
<thead>
<tr>
<th>SR.</th>
<th>QTY.</th>
<th>REF.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>CN1</td>
<td>2 PIN PBT CONNECTOR</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>CN2</td>
<td>2 PIN PBT CONNECTOR</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>C1</td>
<td>0.15μF/275VAC</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>P1</td>
<td>470K/500K POT</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Q1</td>
<td>BT136</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Q2</td>
<td>DB3</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>R1</td>
<td>220K</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>R2</td>
<td>2.2K</td>
</tr>
</tbody>
</table>

For 110V use R1, For 230V Omit R1