

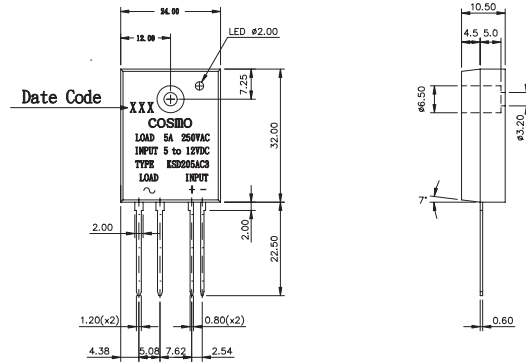
**Features**

1. Molded epoxy body.
2. Zero crossing circuit.
3. High input/output insulation.
4. Small size and light weight.
5. Can be installed directly on the PC board.
6. Fast reactive speed.
7. Normally open.

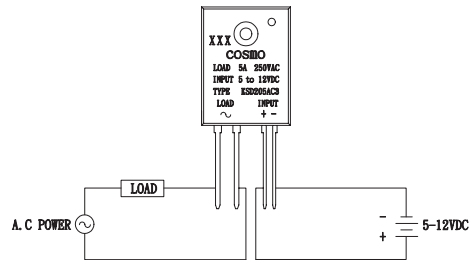
**Applications**

1. Household Appliances.
2. Temperature Control System.
3. Industrial Automatic Control.
4. Lighting System.
5. Office Appliances.
6. Factory Appliances.

**Outside Dimension : Unit (mm)**



**Schematic : Top View**



**Absolute Maximum Ratings**

(Ta=25°C)

| Parameter                         |   | Symbol             | Rating  | Unit    |
|-----------------------------------|---|--------------------|---------|---------|
| Input                             | Input Signal Voltage                      | V <sub>IN</sub>    | 5~12    | VDC     |
|                                   | Drop-out Voltage                          | V <sub>do</sub>    | 1       | VDC     |
| Output                            | RMS on-state current                      | I <sub>T</sub>     | 5       | Arms    |
|                                   | Peak one cycle surge current (8.3 ms)     | I <sub>surge</sub> | 50      | A       |
|                                   | Repetitive peak-off state Voltage         | V <sub>DRM</sub>   | 600     | V       |
|                                   | Operating frequency                       | f                  | 47~70   | Hz      |
|                                   | Critical rate of rise of on-state current | di/dt              | 50      | A/μS    |
|                                   | Load supply voltage                       | V <sub>out</sub>   | 250     | Vrms AC |
| Isolation Voltage input to output |   | V <sub>iso</sub>   | 4000    | Vrms    |
| Operating Temperature             |   | T <sub>opr</sub>   | -30~100 | °C      |
| Storage Temperature               |   | T <sub>stg</sub>   | -30~125 | °C      |
| Soldering Temperature 10 Sec      |   | T <sub>sol</sub>   | 260     | °C      |

**Electrical Characteristics**

(Ta=25°C)

| Parameter                                      |  | Symbol                | Conditions                  | MIN              | TYP | MAX | Unit  |
|--|--|-----------------------|-----------------------------|------------------|-----|-----|-------|
| Input  | Pick-up Voltage                            | V <sub>pu</sub>       | I <sub>t</sub> =1Arms       |                  |     | 4   | VDC   |
|  | Input current                              | I <sub>in</sub>       | V <sub>in</sub> =5-12V      | 5                |     | 25  | mA    |
| Output   | On-state Voltage                           | V <sub>T</sub>        | I <sub>T</sub> =1Arms       |                  |     | 1.5 | Vrms  |
|  | Operating Current                          | I <sub>op</sub>       | V <sub>out</sub> =240Vrms   | 50               |     |     | mArms |
|  | Leakage Current                            | I <sub>leak</sub>     | V <sub>out</sub> =240Vrms   |                  |     | 7   | mArms |
|  | Critical rate of rise of off-state Voltage | dv/dt                 | See Note 1                  | 50               | 200 |     | V/μS  |
|  | Zero-cross Voltage                         |                       |                             |                  | Yes |     |       |
|  | Load Voltage Rating                        | V <sub>out</sub>      | I <sub>T</sub> =50mArms MIN | 50               |     | 280 | VAC   |
| Minimum trigger current                        |  | I <sub>FT</sub>       | V <sub>DRM</sub> =600V      |                  |     | 10  | mA    |
| Isolation resistance input to output           |  | R <sub>iso</sub>      | DC500V                      | 10 <sup>10</sup> |     |     | Ω     |
| Turn-on time                                   |  | T <sub>on</sub>       | 60Hz AC                     |                  |     | 8.3 | mS    |
| Turn-off time                                  |  | T <sub>off</sub>      | 60Hz AC                     |                  |     | 8.3 | mS    |
| Thermal resistance (between junction and case) |  | R <sub>th (j-c)</sub> | I                           |                  | 1.3 |     | °C/W  |

Note1 : Output (dv/dt) protection is provided in all models, and they are designed to switch resistive or inductive loads to 0.2 power factor. The dv/dt rating is based on source impedance of 50 ohms.

Data Curve

