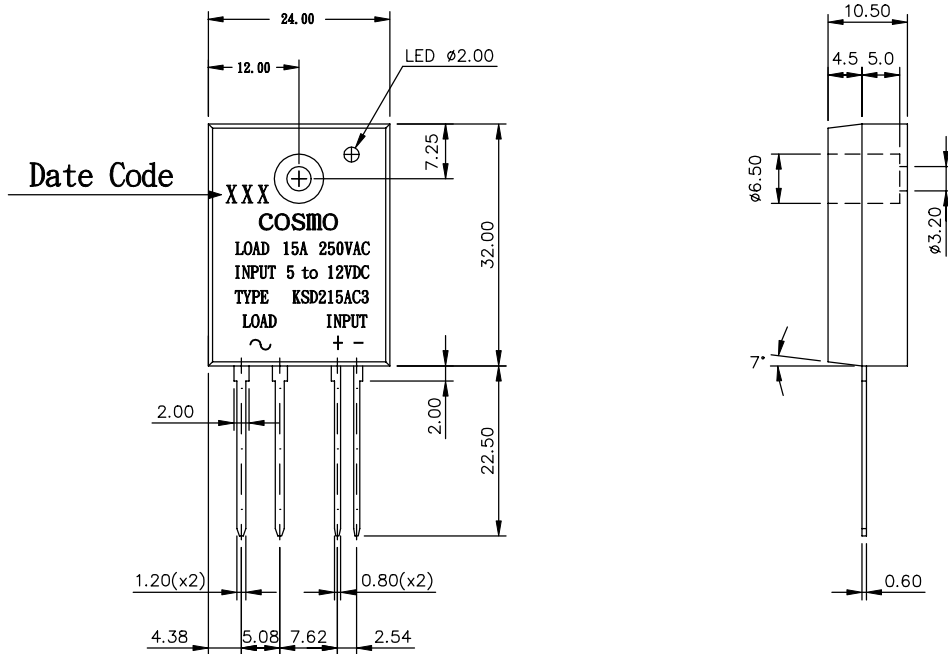


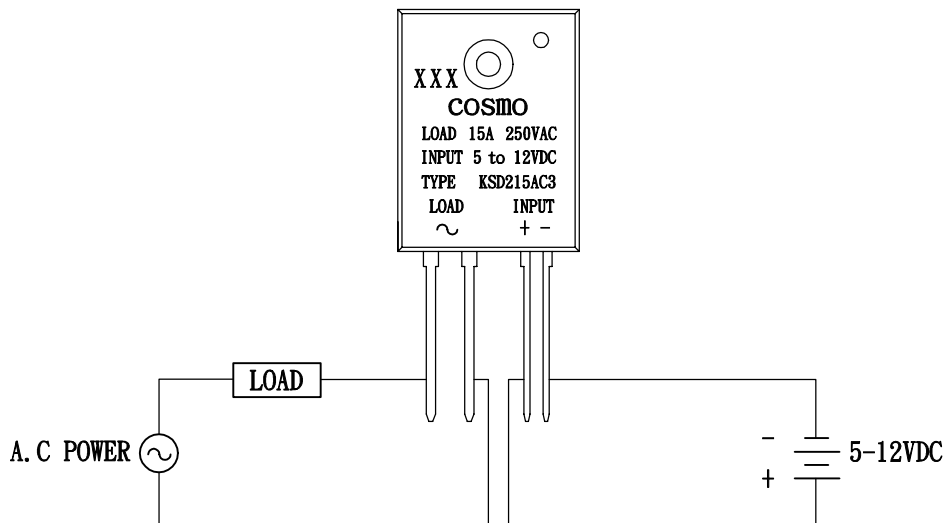
# PRODUCT SPECIFICATION

|   |   |                     |
|---|---|---------------------|
| <b>COSMO</b><br>ELECTRONICS CORPORATION | <b>SOLID STATE RELAY:</b><br><b>KSD215AC3</b> | <b>SHEET 1 OF 2</b> |
|---|---|---------------------|

## 1. OUTSIDE DIMENSION : UNIT ( mm )



## 2. SCHEMATIC : TOP VIEW



# PRODUCT SPECIFICATION

|   |  |              |
|---|--|--------------|
| <b>COSMO</b><br>ELECTRONICS CORPORATION | SOLID STATE RELAY:<br><b>KSD215AC3</b> | SHEET 2 OF 2 |
|---|--|--------------|

## 3. 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>     | 15      | Arms                |
|                                   | Peak one cycle surge current              | I <sub>surge</sub> | 150     | 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/us                |
|                                   | Load supply voltage                       | V <sub>out</sub>   | 250     | V <sub>rms</sub> AC |
| Isolation voltage input to output |   | V <sub>iso</sub>   | 4000    | V <sub>rms</sub>    |
| Operating temperature             |   | T <sub>opr</sub>   | -30~100 | °C                  |
| Storage temperature               |   | T <sub>stg</sub>   | -30~125 | °C                  |
| Soldering temperature 10sec       |   | T <sub>sol</sub>   | 260     | °C                  |

## 4. 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 | V <sub>rms</sub> |
|   | Operating current                          | I <sub>op</sub>           | V <sub>out</sub> =240v <sub>rms</sub> | 50               |     |     | mArms            |
|   | Leakage current                            | I <sub>leak</sub>         | V <sub>out</sub> =240v <sub>rms</sub> |                  |     | 8   | mArms            |
|   | Critical rate of rise of off-state voltage | dv/dt                     | See Note 1                            | 50               | 200 |     | V/us             |
|   | Zero-cross voltage                         | V <sub>ox</sub>           | I <sub>in</sub> =7mA                  | 50               |     | 35  | VAC              |
|   | Load Voltage Rating                        | V <sub>out</sub>          | I <sub>T</sub> =50mArms MIN           |                  |     | 280 | VAC              |
| Minimum trigger current                           |  | I <sub>FT</sub>           | V <sub>DRM</sub> =600V                |                  |     | 25  | 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<br>(between junction and case) |  | R <sub>th</sub><br>(j-c)1 |                                       |                  | 1.3 |     | °C/W             |