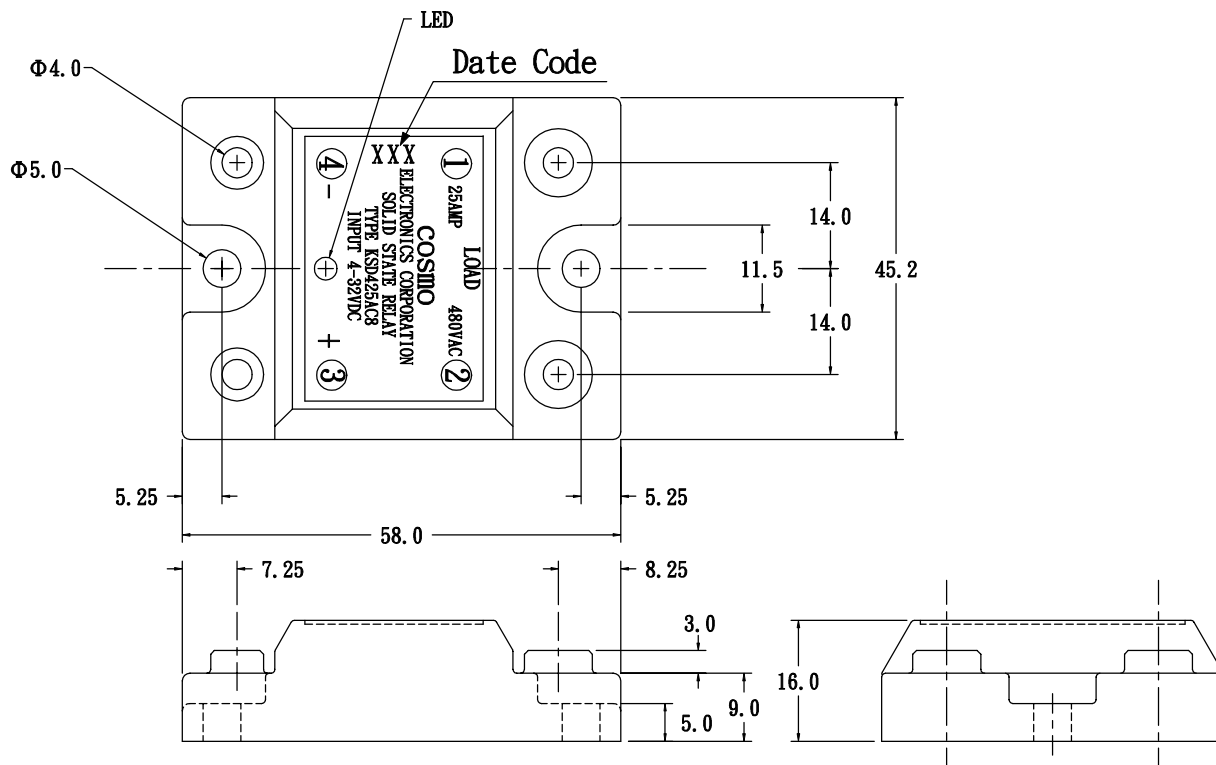


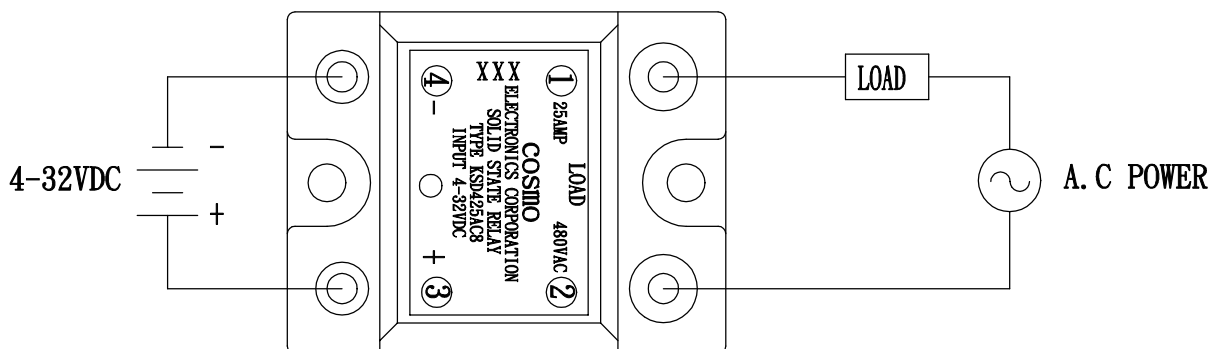
# PRODUCT SPECIFICATION

|   |  |                     |
|---|--|---------------------|
| <p><b>COSMO</b><br/>ELECTRONICS CORPORATION</p> | <p>SOLID STATE RELAY:<br/><b>KSD425AC8</b></p> | <p>SHEET 1 OF 2</p> |
|---|--|---------------------|

## 1. OUTSIDE DIMENSION : UNIT ( mm )



## 2. SCHEMATIC : TOP VIEW



# PRODUCT SPECIFICATION

|   |  |              |
|---|--|--------------|
| <b>COSMO</b><br>ELECTRONICS CORPORATION | SOLID STATE RELAY:<br><b>KSD425AC8</b> | SHEET 2 OF 2 |
|---|--|--------------|

## 3. Absolute Maximum Ratings

(Ta=25°C)

| Parameter                         |   | Symbol             | Rating  | Unit                |
|-----------------------------------|---|--------------------|---------|---------------------|
| Input                             | Input signal voltage                      | V <sub>IN</sub>    | 4-32    | VDC                 |
|                                   | Drop-out voltage                          | V <sub>do</sub>    | 1       | VDC                 |
| Output                            | RMS on-state current                      | I <sub>T</sub>     | 25      | Arms                |
|                                   | Peak one cycle surge current (8.3ms)      | I <sub>surge</sub> | 250     | A                   |
|                                   | Repetitive peak-off state voltage         | V <sub>DRM</sub>   | 1200    | 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>   | 480     | 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>   | 300     | °C                  |

## 4. Electro-optical Characteristics

(Ta=25°C)

| Parameter                                      |  | Symbol                    | Conditions                            | MIN | TYP | MAX | Unit             |
|--|--|---------------------------|---------------------------------------|-----|-----|-----|------------------|
| Input  | Pick-up voltage                            | V <sub>pu</sub>           | I <sub>in</sub> =1Arms                |     |     | 4   | VDC              |
|  | Input current                              | I <sub>in</sub>           | V <sub>in</sub> =4~32V                | 5   |     | 12  | 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> =480V <sub>rms</sub> | 50  |     |     | mArms            |
|  | Leakage current                            | I <sub>leak</sub>         | V <sub>out</sub> =480V <sub>rms</sub> |     |     | 14  | mArms            |
|  | Critical rate of rise of off-state voltage | dv/dt                     |                                       | 50  | 200 |     | V/us             |
|  | Zero-cross voltage                         | V <sub>ox</sub>           | I <sub>in</sub> =7mA                  |     |     | 35  | VAC              |
|  | Load Voltage Rating                        | V <sub>out</sub>          | I <sub>T</sub> =50mArms MIN           | 75  |     | 280 | VAC              |
| Minimum trigger current                        |  | I <sub>FT</sub>           | V <sub>DRM</sub> =1200V               |     |     | 25  | mA               |
| Isolation resistance input to output           |  | R <sub>iso</sub>          | DC500V                                | 10  |     |     | GΩ               |
| 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</sub><br>(j-c)1 |                                       |     | 1.3 |     | °C/W             |