

# COSMO High Voltage, Solid State Relay-MOSFET Output KAQW212/212A

UL 1577/ UL 508 (File No.E108430), FI EN60950 (File No.FI13698)

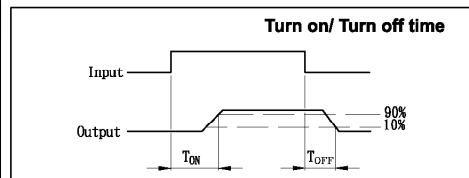
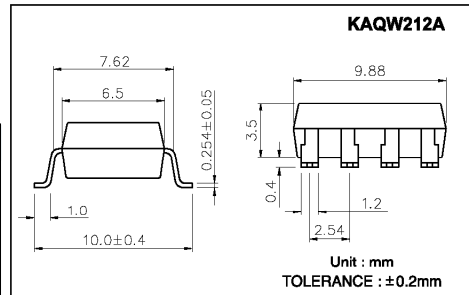
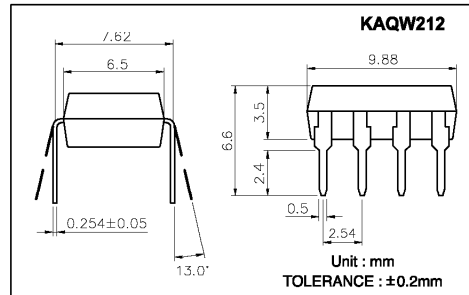
## Features

1. Normally Open, Single Pole Single Throw
2. Control 60V AC or DC Voltage
3. Switch 400mA Loads
4. LED control Current, 5mA
5. Low ON-Resistance
6.  $dv/dt$ , >500V/ms
7. Isolation Test Voltage, 3750VACrms

## Absolute Maximum Ratings

(Ta=25°C)

| Emitter ( Input )                          | Detector ( Output )                           |
|--|---|
| Reverse Voltage.....5.0V                   | Output Breakdown Voltage .....±60V            |
| Continuous Forward Current .....50mA       | Continuous Load Current .....±400mA           |
| Peak Forward Current .....1A               | Power Dissipation .....500mW                  |
| Power Dissipation .....100mW               |   |
| Derate Linearly from 25°C .....1.3mW/°C    |   |
| <b>General Characteristics</b>             |   |
| Isolation Test Voltage .....3750VACrms     | Storage Temperature Range ...-40°C to +125°C  |
| Isolation Resistance                       | Operating Temperature Range ...-30°C to +85°C |
| Vio=500V, Ta=25°C .....≥10 <sup>10</sup> Ω | Junction Temperature.....100°C                |
| Total Power Dissipation .....550mW         | Soldering Temperature,                        |
| Derate Linearly from 25°C .....2.5mW/°C    | 2mm from case, 10 sec .....260°C              |



## Electro-optical Characteristics

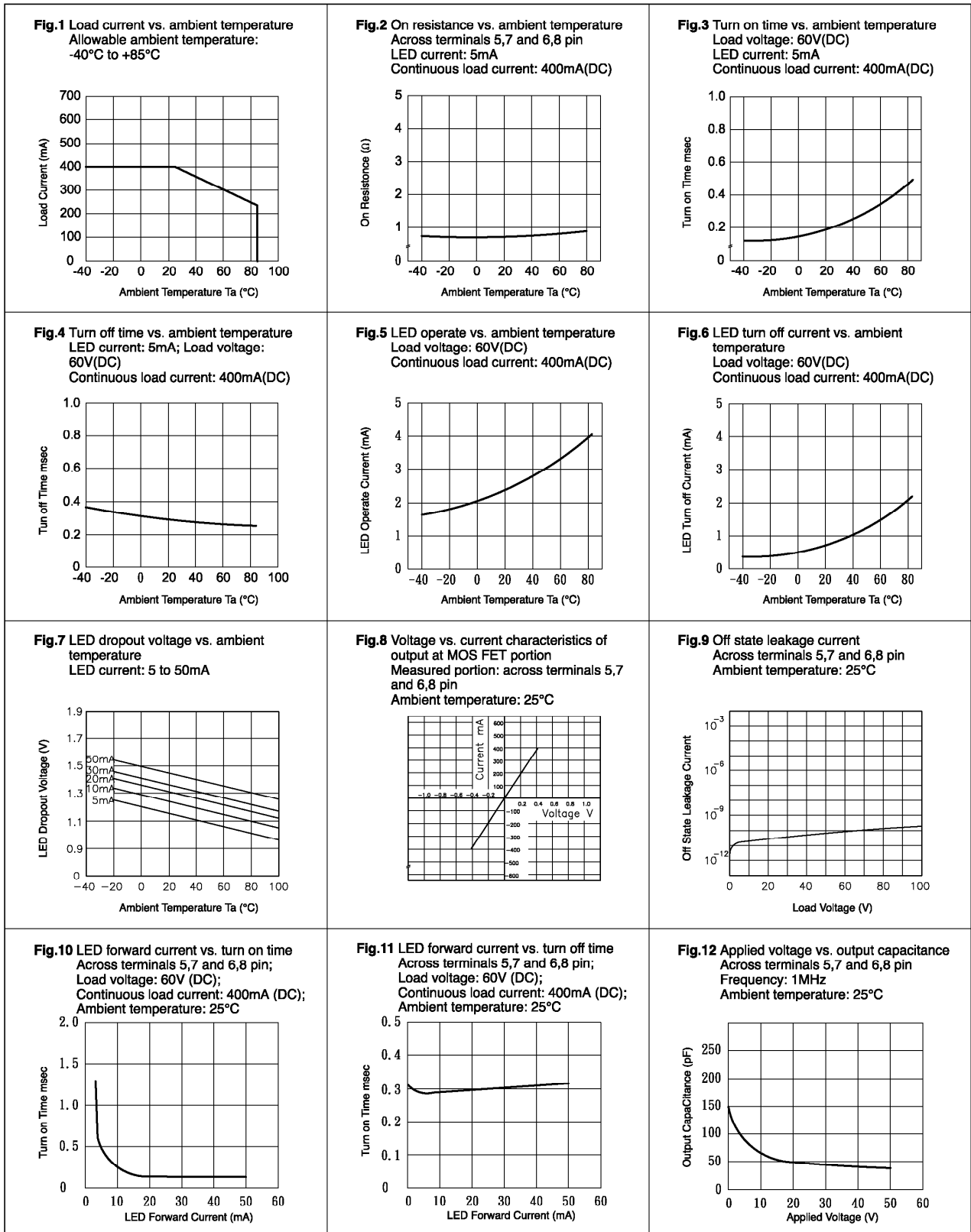
(Ta=25°C)

| Parameter                | Symbol            | Conditions  | Min. | Typ. | Max. | Unit |
|--------------------------|-------------------|---|------|------|------|------|
| <b>Emitter (Input)</b>   |                   |   |      |      |      |      |
| Forward Voltage          | V <sub>F</sub>    | I <sub>F</sub> = 10mA                                   |      | 1.2  | 1.5  | V    |
| Operation Input Current  | I <sub>FON</sub>  | V <sub>L</sub> = ±20V, I <sub>L</sub> = 100mA, t = 10mS |      |      | 5    | mA   |
| Recovery Input Current   | I <sub>FOFF</sub> | V <sub>L</sub> = ±20V, I <sub>L</sub> ≤ 5uA             | 0.2  |      |      | mA   |
| <b>Detector (Output)</b> |                   |   |      |      |      |      |
| Output Breakdown Voltage | V <sub>B</sub>    | I <sub>B</sub> = 50uA                                   | 60   |      |      | V    |
| Output Off-State Leakage | I <sub>TOFF</sub> | V <sub>T</sub> = 60V, I <sub>F</sub> = 0mA              |      | 0.2  | 1    | uA   |
| I/O Capacitance          | C <sub>ISO</sub>  | I <sub>F</sub> = 0, f = 1MHz                            |      | 6    |      | pF   |
| ON Resistance            | R <sub>ON</sub>   | I <sub>L</sub> = 100mA, I <sub>F</sub> = 10mA           |      | 0.83 | 2.50 | Ω    |
| Turn-On Time             | T <sub>ON</sub>   | I <sub>F</sub> = 10mA, V <sub>L</sub> = ±20V            |      | 0.2  | 1.5  | ms   |
| Turn-Off Time            | T <sub>OFF</sub>  | t = 10ms, I <sub>L</sub> = ±100mA                       |      | 0.3  | 1.5  | ms   |

## Schematic and Wiring Diagrams

| Type                     | Schematic | Output configuration | Load  | Connection | Wiring Diagrams   |
|--------------------------|-----------|----------------------|-------|------------|---|
| KAQW212<br>&<br>KAQW212A |           | 2a                   | AC/DC | -          | <p>(1) Two independent 1 Form A use</p> <p>(2) 2 Form A use</p> |

## Data Curve



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Solid State Relays - PCB Mount](#) category:*

*Click to view products by [Cosmo](#) manufacturer:*

Other Similar products are found below :

[M90F-2W](#) [M90F-2Y](#) [G2-1A07-ST](#) [G2-1A07-TT](#) [G2-1B02-TT](#) [G2-DA06-ST](#) [PLA134S](#) [DS11-1005](#) [AQH3213J](#) [AQV210EHJ](#) [AQV212J](#)  
[AQV252GAJ](#) [AQY221N2SJ](#) [AQY221R2SJ](#) [EFR1200480A150](#) [901-7](#) [LCA220](#) [LCB110S](#) [1618400-5](#) [SR75-1ST](#) [AQV112KLJ](#) [AQV212AJ](#)  
[AQV212SXJ](#) [AQV238AD01](#) [AQY212ST](#) [AQY275AXJ](#) [AQY414SXE01](#) [G2-1A02-ST](#) [G2-1A03-ST](#) [G2-1A03-TT](#) [G2-1A05-ST](#) [G2-1A06-](#)  
[TT](#) [G2-1A23-TT](#) [G2-1B01-ST](#) [G2-1B01-TT](#) [G2-1B02-ST](#) [G2-DA03-ST](#) [G2-DA03-TT](#) [G2-DA06-TT](#) [3-1617776-2](#) [CTA2425](#) [TLP3131\(F\)](#)  
[LBA110S](#) [LBB110S](#) [LCA110LSTR](#) [LCB126S](#) [WPPM-0626D](#) [WPPM-3526D](#) [WPPM-3588D](#) [X4IDC15D](#)