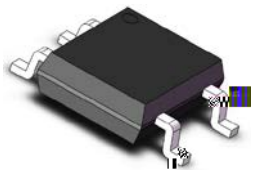
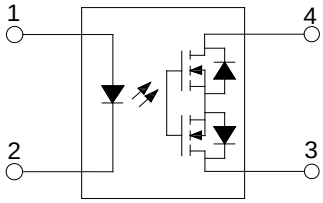
JOR21X Series

Rev.A.1.0

## DESCRIPTION:

The products are 4-pin optical relays. The device consists of an AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit in a plastic SOP4 package. The detector consists of a high-speed photovoltaic diode array and driver circuitry. The products are widely used in measuring and testing equipment, security and disaster prevention market, industrial machinery and equipment.






## MAIN FEATURES

High isolation 3750 Vrms
Wide variation of load voltage 60V to 600V
Operating temperature range -40℃ to 110℃
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

## ABSOLUTE MAXIMUM RATINGS (Temperature=25℃)

| Parameter | | | Symbol | Value | Unit |
|---|---|---|---|---|---|
| Input | Forward Current | | $I_F$ | 50 | mA |
| | Peak Forward Current | | $I_{FP}$ | 1 | A |
| | Reverse Voltage | | $V_R$ | 6 | V |
| | Input Power Dissipation | | $P_D$ | 75 | mW |
| Output | Load Voltage | JOR212 | $V_O$ | 60 | V |
| | | JOR213 | | 100 | |
| | | JOR217 | | 200 | |
| | | JOR214 | | 400 | |
| | | JOR216 | | 600 | |
| | Continuous load current | JOR212 | $I_O$ | 1.25 | A |
| | | JOR213 | | 1.25 | |
| | | JOR217 | | 0.3 | |
| | | JOR214 | | 0.1 | |
| | | JOR216 | | 0.05 | |
| | Output Power Dissipation | | $P_O$ | 300 | mW |

JOR21X

FIG.7: Turn On Time vs. Ambient Temperature

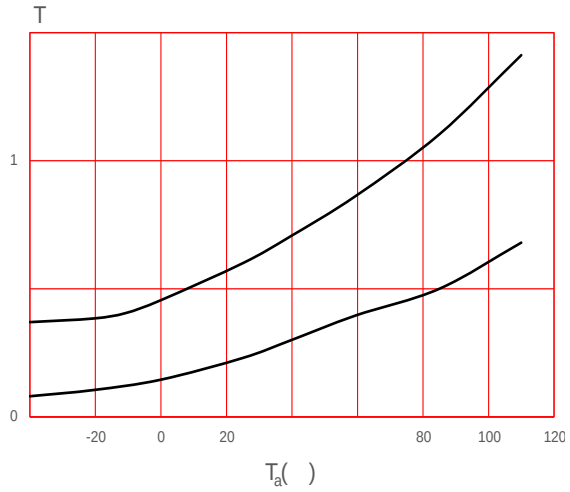
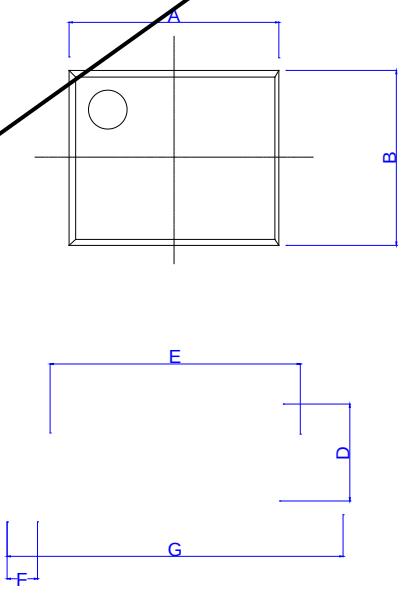



FIG.8: Turn Off Time vs. Ambient Temperature

## Package Dimension (Unit:mm)




| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 4.40 | | 4.80 | 0.173 | | 0.189 |
| B | 3.60 | | 4.20 | 0.142 | | 0.165 |
| C | | | | | | |
| D | 1.90 | | 2.30 | 0.075 | | 0.091 |
| E | 5.00 | | 5.60 | 0.197 | | 0.220 |
| F | | | | | | |
| G | 6.70 | | | 0.264 | | |
| H | | | | | | |
| I | | | | | | |
| J | | | | | | |
| | | | | | | |

## CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option T1



JOR21X

Note:

1. Reflow soldering is recommended at the temperatures and times shown, no more than three times.

2. Avoid direct contact between the epoxy body and any tools or surfaces exceeding its maximum storage temperature.

3. Application of pressure on the epoxy body is prohibited at elevated temperatures. In specific scenarios, any applied force must not exceed 2.5N.

4. Ensure the component has cooled to ambient temperature before proceeding with any subsequent manufacturing steps.

5. The component has a shelf life of one year when stored under standard conditions.

6. Recommend storage Temp.: 0~40℃;