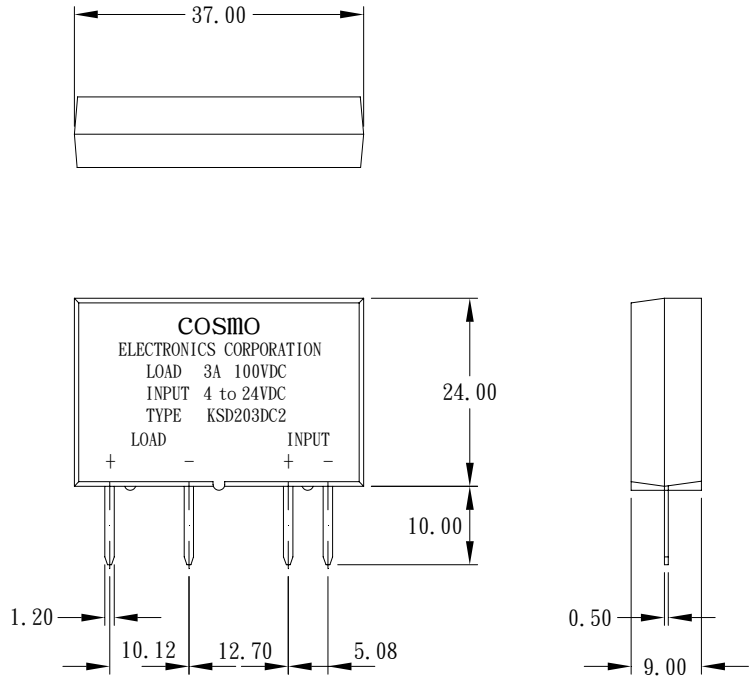
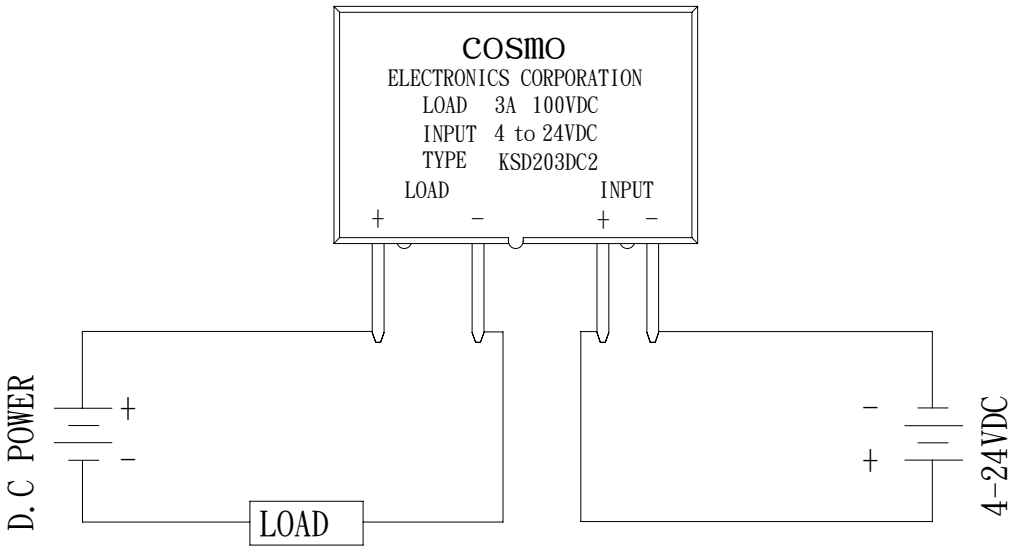
# PRODUCT SPECIFICATION

| cosmo<br>ELECTRONICS CORPORATION | SOLID STATE RELAY :<br>**KSD203DC2** | NO. 58021103<br>SHEET 1 OF 3 | REV.<br>5 |
|---|---|---|---|

## 1. OUTSIDE DIMENSION : UNIT ( mm )




## 2. SCHEMATIC : TOP VIEW



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| | | SHEET 2 OF 3 | |

## 3.Absolute Maximum Ratings

| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Input | Input signal voltage | $V_{IN}$ | 4~24 | VDC |
| | Drop-out voltage | Vdo | 1 | VDC |
| Output | Output power dissipation | Pc | 30 | W |
| | Collector voltage | $V_{CEO}$ | 100 | V |
| | Output current | Io | 3 | A |
| Peak surge current 50us | | Isurge | 9 | A |
| Isolation voltage | | Viso | 4000 | Vrms |
| Operating temperature | | Topr | -30~100 | ℃ |
| Storage temperature | | Tstg | -30~125 | ℃ |
| Soldering temperature 10 sec | | Tsol | 260 | ℃ |

## 4.Electrical Characteristics

| Parameter | | Symbol | Conditions | MIN | TYP | MAX | Unit |
|---|---|---|---|---|---|---|---|
| Input | Pick-up voltage | Vpu | It=1Arms | | | 4 | VDC |
| | Input current | Iin | Vin=4~24V | | | 25 | mA |
| | Terminal capacitance | $C_T$ | V=0,f=1KHz | | 30 | | pF |
| Output | Collector-emitter breakdown voltage | $BV_{CEO}$ | $I_F$=0 | 100 | | | |
| | Output leak current | Ileak | V=30V, $I_F$ =0 | | | 15 | uA |
| Collector current | | $I_C$ | $I_F$=1mA, $V_{CE}$ =2V | 0.05 | | 3 | A |
| Collector-emitter saturation voltage | | $V_{CE}$ (sat) | $I_F$=5mA, $I_C$ =100mA | | | 2.0 | V |
| Isolation resistance | | Riso | DC500V | 10 | | | GΩ |
| Floating capacitance | | Cr | V=0,f=1MHz | | | 3 | pF |
| Cut-off frequency | | $F_C$ | $V_{CE}$=2V,Ic=200mA $R_L$=100Ω | 2 | | | KHz |
| Response time(Rise) | | Tr | $V_{CE}$=2V,Ic=20mA | | | 500 | uS |
| Response time(Fall) | | Tf | $R_L$=100Ω | | | 200 | uS |

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