

# CXA-0474

## Dimming/Connector Type

### Features

- 2-output
  - Applicable panel size\*: 10 to 12 inches
  - With brightness control function (Pulse Wide Modulation mode).
  - With shut down function.
  - With a sensing function for running out of lamp (alarm output).
  - In the high-voltage generator(a terminal and a pattern), an anti-dust measure by silicone application is taken.
- (Notice) Applicable panel size becomes a standard.

### Applications



## CXA-0474 Specifications (Please refer to each specification before use)

### Electrical Characteristics

| Item                 | Unit | Symbol                   | Specification |      |      | Condition |         |        |         |            |        | Remark                       |
|----------------------|------|--------------------------|---------------|------|------|-----------|---------|--------|---------|------------|--------|------------------------------|
|                      |      |                          | min           | typ  | max  | Vin(V)    | Vrmt(V) | Vbr(V) | Rbr(kΩ) | Ta(°C)     | RL(kΩ) |                              |
| Output Current       | mA   | Iout<br>(Maximum dimmer) | 4.5           | 5.0  | 5.5  | 12±0.6    | 5       | 2.5    | -       | -10 to +70 | 110    | Voltage dimmer (*1)          |
|                      |      |                          | 4.5           | 5.0  | 5.5  | 12±0.6    | 5       | -      | 10      | -10 to +70 | 110    | Volume dimmer (*1)           |
|                      |      | Iout<br>(Minimum dimmer) | 1.5           | 2.5  | 3.5  | 12±0.6    | 5       | 0      | -       | -10 to +70 | 110    | Voltage dimmer (*1)          |
|                      |      |                          | 1.5           | 2.5  | 3.5  | 12±0.6    | 5       | -      | 0       | -10 to +70 | 110    | Volume dimmer (*1)           |
| Input Current        | A    | Iin1                     | -             | 0.6  | 1.0  | 12±0.6    | 5       | 2.5    | 10      | -10 to +70 | 110    | Remote ON                    |
|                      | mA   | Iin2                     | -             | -    | 1    | 12±0.6    | 0       | 2.5    | 10      | -10 to +70 | 110    | Remote OFF                   |
| Frequency            | kHz  | Freq1                    | 63.5          | 67.5 | 72.0 | 12±0.6    | 5       | 2.5    | 10      | -10 to +70 | 110    |                              |
|                      | Hz   | Freq2 (Duty frequency)   | 241           | 255  | 268  | 12±0.6    | 5       | 0      | -       | -10 to +70 | 110    |                              |
| Open Circuit Voltage | Vrms | Vopen                    | 1750          | 1850 | 1950 | 11.4min.  | 5       | 2.5    | 10      | -10 to +70 | ∞      | Open load                    |
| Alarm Signal         | V    | Vst                      | 4.5           | 5    | 5.5  | 12±0.6    | 5       | 2.5    | 10      | -10 to +70 | ∞      | In case of lamp anomaly (*2) |
|                      |      |                          | -             | 0    | 0.5  | 12±0.6    | 5       | 2.5    | 10      | -10 to +70 | 110    | On a normal operation (*2)   |

(\*1) Please refer to the connection diagram for details of a dimming method.

(\*2) Please refer to the connection diagram for details of alarm output.

### Other Specifications

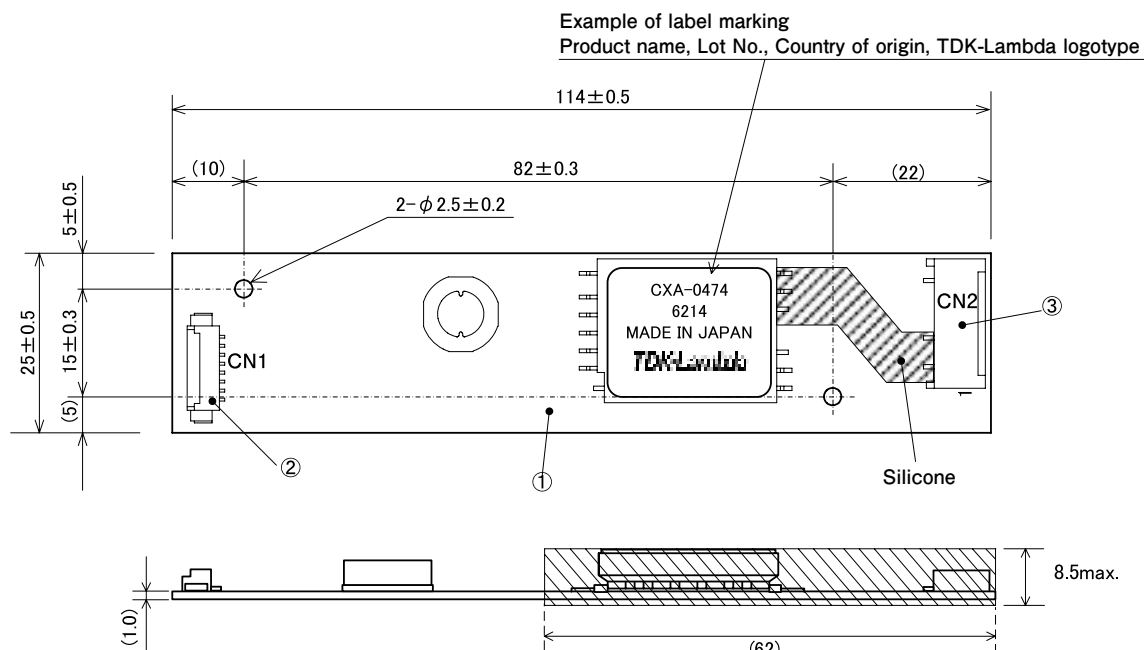
|                                       |     |                 |
|---------------------------------------|-----|-----------------|
| Dimming Function                      |     | Yes             |
| Operating Temperature                 | °C  | -10 to +70      |
| Storage Temperature                   | °C  | -30 to +85      |
| Operating Humidity Ratio              | RH% | 95Max           |
| Safety Standard                       |     | —               |
| Weight                                | g   | 22              |
| Dimensions(WxDxH)                     | mm  | 114x25x8.5 (*3) |
| Fused Input                           |     | Yes             |
| Remote ON / OFF                       |     | Yes             |
| Alarm Signal Function                 |     | Yes             |
| Shutdown Function                     |     | Yes             |
| Silicone Coating on High Voltage Area |     | Yes             |

(\*3) These dimensions are indicated the maximum only H. Others are typical values.

### Conformity to RoHs Directive

This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

# Outline Drawing



High-voltage generator ※

(The entire surface within a range of 62mm away from the end of the base in)

※From high-voltage generator, please secure space distance more than 3mm in top and bottom right and left.

unit:mm

## Connector

| Connector number | Part number               | Model/Material                   | Quantity | Remarks            | Recommended applicable connector |
|------------------|---------------------------|----------------------------------|----------|--------------------|----------------------------------|
| ①                | Printed circuit board PCB | Composite (CEM-3)                | 1        | UL94V-0 t=1.0      | —                                |
| ②                | Input connector CN1       | 53261-0871                       | 1        | Molex Inc.         | 51021-0800                       |
| ③                | Output connector CN2      | SM03 (7-D1) B-BHS-1-TB (LF) (SN) | 1        | JST Mfg. Co., Ltd. | BHR-04VS-1                       |

## Terminal Numbers And Functions

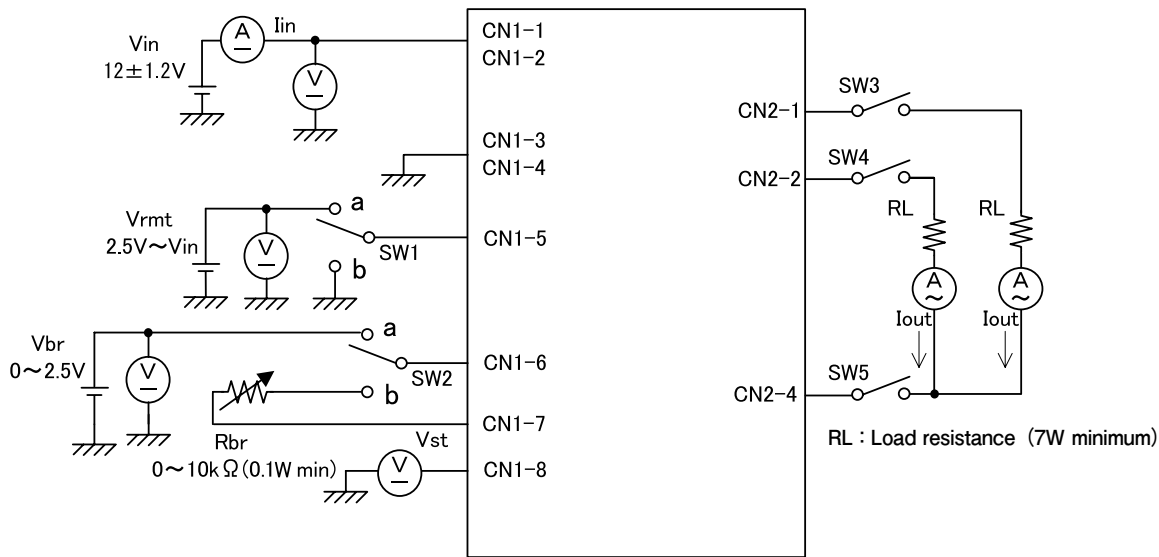
### Input side CN1

| Terminal number | Symbol          | Rated voltage       | Remarks                                                            |
|-----------------|-----------------|---------------------|--------------------------------------------------------------------|
| CN1-1           | Vin             | 12±0.6V             | Power input                                                        |
| CN1-2           |                 |                     |                                                                    |
| CN1-3           | GND             | 0V                  | Ground                                                             |
| CN1-4           |                 |                     |                                                                    |
| CN1-5           | Vrmt            | 0V/2.5V to Vin      | Remote terminal<br>0 to 0.4V : OFF<br>2.5 to Vin : ON<br>Open : ON |
| CN1-6           | Rbr1/Vbr        | 0 to 2.5V/0 to 10kΩ | Dimmer terminal 1                                                  |
| CN1-7           | Rbr2            | 0 to 10kΩ           | Dimmer terminal 2                                                  |
| CN1-8           | Vst<br>(Output) | 0V/5V               | Alarm output Lump open : 5V                                        |

### Output side CN2

| Terminal number | Symbol             | Rated voltage | Remarks           |
|-----------------|--------------------|---------------|-------------------|
| CN2-1           | V <sub>HIGH1</sub> | 550Vrms       | Output 1          |
| CN2-2           | V <sub>HIGH2</sub> | 550Vrms       | Output 2          |
| CN2-3           | N.C.               | —             | N.C.              |
| CN2-4           | V <sub>LOW</sub>   | (2V)          | Output 1,2 return |

# Connections



Operate as follows by switching SW1.

| SW1  | Unit operation   |
|------|------------------|
| a    | Operation        |
| b    | Does not operate |
| Open | Operation        |

Operate as follows by switching SW2.

| SW2 | Unit operation                                                             |
|-----|----------------------------------------------------------------------------|
| a   | Voltage dimmer<br>$V_{br}=0$ to 2.5V<br>$V_{br}=2.5V$ : Maximum brightness |
| b   | Volume dimmer<br>$V_R=0$ to 10kΩ<br>$V_R=10kΩ$ : Maximum brightness        |

## Protection circuit operation

| Load condition                   | Alarm output (CN1-8) <sup>※1</sup> | Shut-down function <sup>※2</sup> |
|----------------------------------|------------------------------------|----------------------------------|
| Normal condition                 | 0.5V max.                          | Does not shut down               |
| When 1 load (lamp) is run-out    | 5±0.5V                             | Does not shut down               |
| When 2 loads (lamps) are run-out | 5±0.5V                             | Shut down                        |

※1: In the case of low mode, and more than one of SW3-SW5 in the connection diagram was open, output alarm signal of 5V.

※2: When all lamps were opened, this inverter has included protective function to stop operation in about 3 seconds.