

# CXA-0543

## 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



Dc-AC Inverter

Connector type/2 output

## CXA-0543 Specifications (Please refer to each specification before use)

### Electrical Characteristics

Item	Unit	Symbol	Specification			Condition							Remarks
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Rbr(kΩ)	Ta(°C)	RL(kΩ)	CL(pF)(*3)	
Output Current	mA	Iout (Maximum dimmer)	4.5	5.0	5.5	12±0.6	5	0	-	23±5	100	5	Voltage dimmer (*1)
			4.5	5.0	5.5	12±0.6	5	-	0	23±5	100	5	Volume dimmer (*1)
			4.3	5.0	5.7	12±1.2	5	0	-	-20 to +80	100	5	Voltage dimmer (*1)
			4.3	5.0	5.7	12±1.2	5	-	0	-20 to +80	100	5	Volume dimmer (*1)
		Iout (Minimum dimmer)	1.3	2.0	2.7	12±0.6	5	2.5	-	23±5	100	5	Voltage dimmer (*1)
			1.3	2.0	2.7	12±0.6	5	-	50	23±5	100	5	Volume dimmer (*1)
			1.2	2.0	2.8	12±1.2	5	2.5	-	-20 to +80	100	5	Voltage dimmer (*1)
			1.2	2.0	2.8	12±1.2	5	-	50	-20 to +80	100	5	Volume dimmer (*1)
Input Current	A	Iin1	-	0.55	0.80	12±0.6	5	0	-20 to +80	100	5	Remote ON	
	mA	Iin2	-	-	1	12±0.6	5	0	-20 to +80	100	5	Remote OFF	
Oscillatory Frequency	kHz	Freq1	50	55	60	12±0.6	5	0	-20 to +80	100	5		
		Freq2 (Duty frequency)	220	250	280	12±0.6	5	2.5	50	-20 to +80	100	5	
Open Circuit Voltage	Vrms	Vopen	1200	1250	1500	10.8min.	5	0	-20 to +80	∞		Open load	
Alarm Signal	V	Vst	4.5	5.5	5.5	12±1.2	5	0	-20 to +80	∞		In case of lamp anomaly (*2)	
			-	0	0.5	12±1.2	5	0	-20 to +80	100	5	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.

(\*3) As equivalent circuit of panel load, connect resistance load (RL) and distributed capacity (CL), and have provided by an electrical characteristic.

### Other Specifications

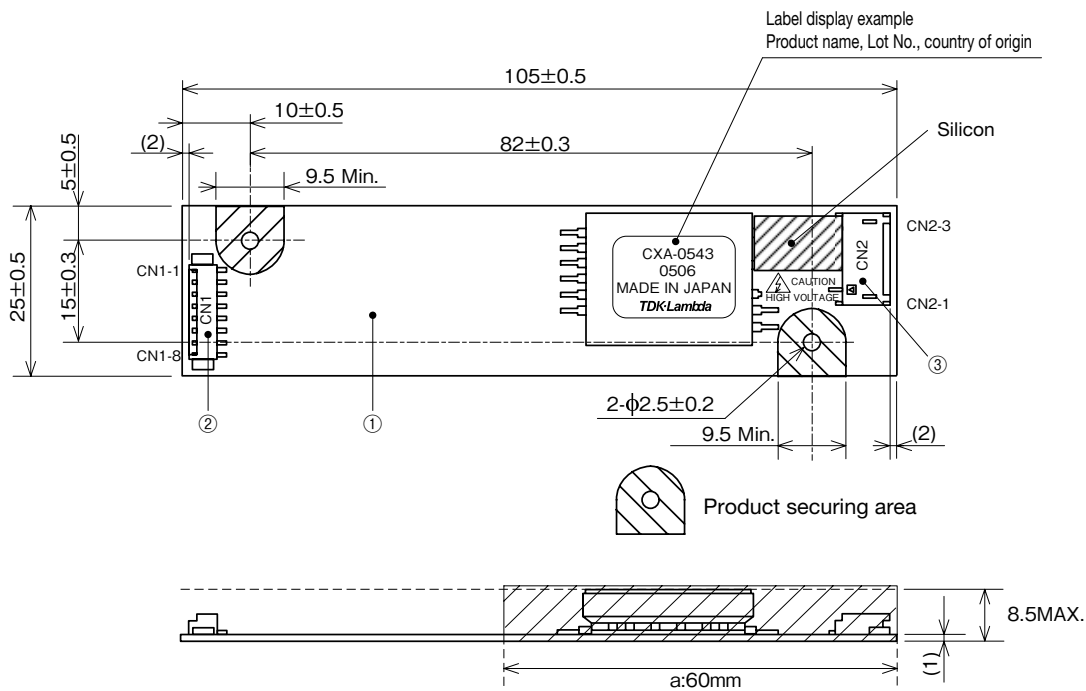
Dimming Function		Yes
Operating Temperature	°C	-20 to +80
Storage Temperature	°C	-30 to +85
Operating Humidity Ratio	RH%	95max.
Safety Standard		-
Weight	g	20typ.
Dimensions (WxDxH)	mm	105x25x8.5 (*4)
Fused Input		Yes
Remote ON / OFF		Yes
Alarm Signal Function		Yes
Shutdown Function		Yes
Silicone Coating on High Voltage Area		Yes

(\*4) 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 generating area (Complete area of 60mm from board end panel)\*  
 \*From high-voltage generator, please secure space distance more than 3mm in top and bottom right and left.

Unit: mm

### Connector

No.	Component name	Type name	Qty	Remarks	Recommended suitable connector
①	Printed circuit board PCB	Composite (CEM-3)	1	UL94V-0 t=1.0	-
②	Input connector CN1	53261-0871	1	Molex	51021-0800
③	Output connector CN2	SM03(4.0)B-BHS-1(LF)(SN)	1	J.S.T Mfg., Co., Ltd	BHR-03VS-1

### Terminal Number & Function

#### Input side CN1

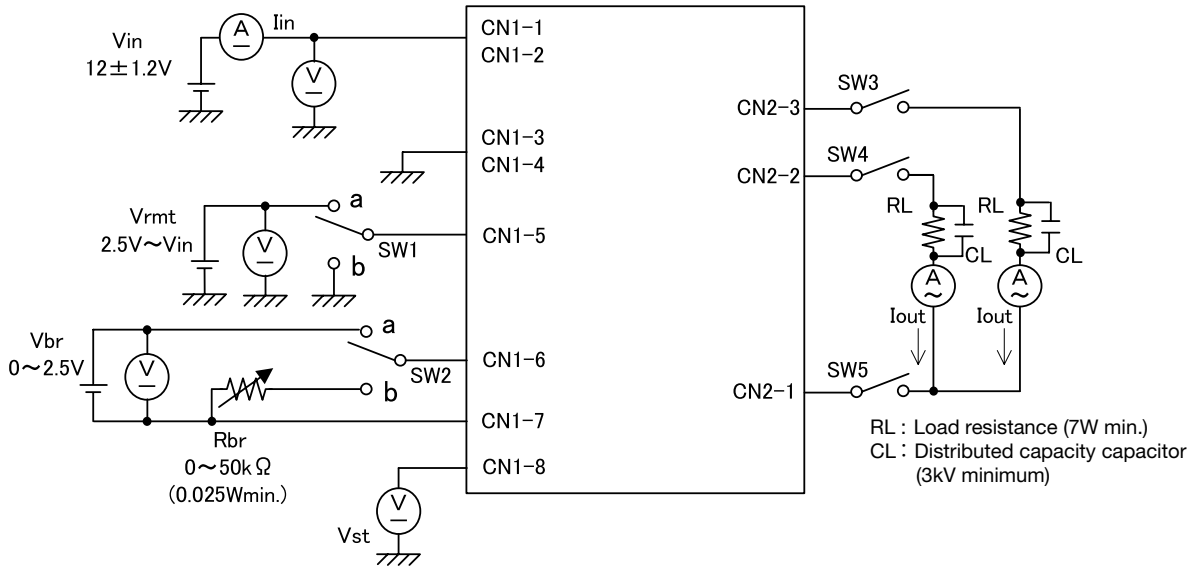
Terminal	Symbol	Rating	Remarks
CN1-1	Vin	$12 \pm 1.2\text{V}$	Power source input
CN1-2			
CN1-3	GND	0V	Ground
CN1-4			
CN1-5	Vrmt	0V/2.5V to Vin	Remote terminal 0 to 0.4V : OFF 2.5 to Vin : ON
CN1-6	Vbr1/Rbr1	0 to 2.5V/0 to 50kΩ	Dimmer terminal 1
CN1-7	Vbr2/Rbr2	GND/0 to 50kΩ	Dimmer terminal 2
CN1-8	Vst(output)	0V/5V	Alarm output Lamp open : 5V

#### Output side CN2

Terminal	Symbol	Rating	Remarks
CN2-1	V <sub>LOW</sub>	(2V)	Output 1,2 return
CN2-2	V <sub>HIGH2</sub>	600Vrms	Output2
CN2-3	V <sub>HIGH1</sub>	600Vrms	Output1

Connections

DC-AC Inverter



Operate as follows by switching a SW1.

SW1	Unit operates
a	Operates
b	Does not operate
Open	Does not operate

Operate as follows by switching a SW2.

SW2	Unit operates
a	Voltage dimmer Vbr = 0 to 2.5V (0V: Maximum brightness)
b	Volume dimmer VR = 0 to 50kΩ (0Ω: Maximum brightness)

Connector type/2 output

Protection Circuit Operation

Load condition	Alarm output (CN1-8)*1	Shutdown function*2
When normal	0.5V max.	Does not shut down
When 1 load (lamp) are NG	5±0.5V	Does not shut down
When 2 load (lamp) are NG	5±0.5V	Shuts down

\*1. When more than one of SW3-SW5 in the connection diagram was opened, output alarm signal of 5V.  
 \*2. When all lamps were opened, this inverter has included protective function to stop operation in about 3 seconds.