CXA-0454

Dimming/Connector Type

■ Features

- ●2-output
- ●UL60950 approved
- ●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

F A   MED   MEASURE

CXA-0454 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(℃)	RL(kΩ)	CL(pF)(*3)	
Output Current	mArms	Iout (Maximum dimmer)	5.3	6.0	6.7	12±1.2	5	0	-	-30 to +80	70	5	Voltage dimmer (*1)
			5.3	6.0	6.7	12±1.2	5	-	0	-30 to +80	70	5	Volume dimmer (*1)
		Iout (Minimum dimmer)	2.0	3.0	4.0	12±1.2	5	2.5	-	-30 to +80	70	5	Voltage dimmer (*1)
			2.0	3.0	4.0	12±1.2	5	-	50	-30 to +80	70	5	Volume dimmer (*1)
Input Current	A	Iin1	-	0.7	1.25	12±0.6	5	0		-30 to +80	70	5	Remote ON
	mA	Iin2		-	1	12±0.6		0		-30 to +80	70	5	Remote OFF
Frequency	kHz	Freq1	55	60	65	12±0.6	5	0		-30 to +80	70	5	
	Hz	Freq2(Duty frequency)	230	250	270	12±0.6	5	2.5	50	-30 to +80	70	5	
Open Circuit Voltage	Vrms	Vopen	1500	1700	1900	10.8min.	5	0		-30 to +80	∞		Open load
Alarm Signal	V	Vst	4.5	5.0	5.5	12±1.2	5	0		-30 to +80	∞		In case of lamp anomaly (*2)
			-	0	0.5	12±1.2	5	0		-30 to +80	70	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.
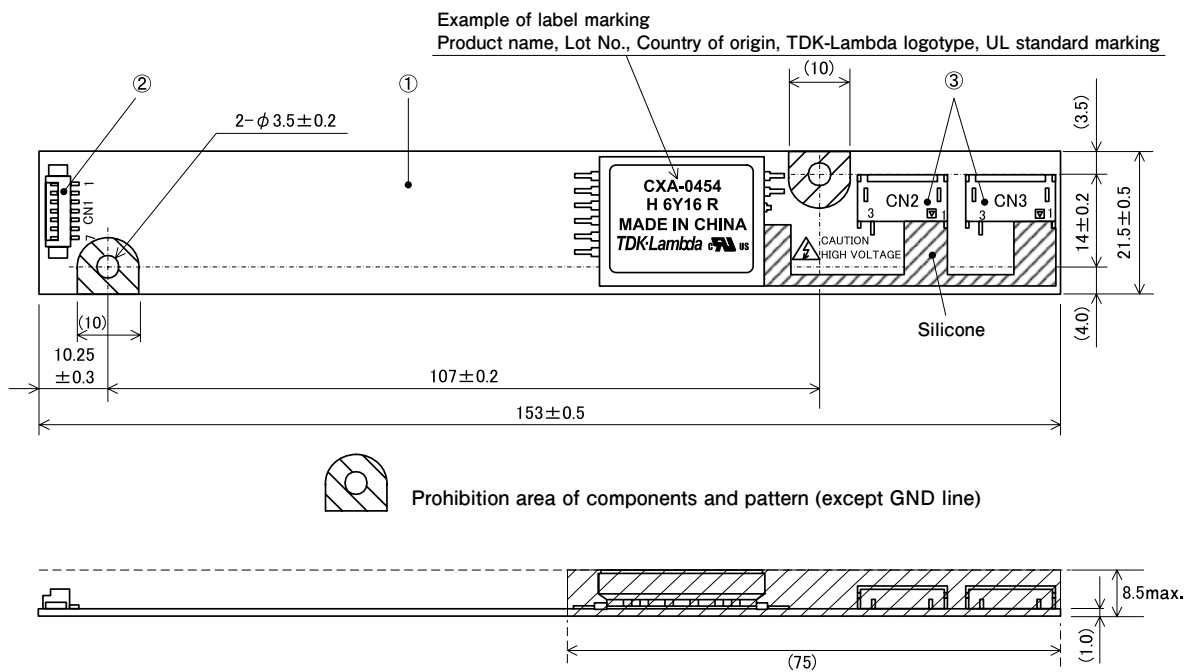
Other specifications

Dimming Function		Yes
Operating Temperature	℃	-30 to +80
Storage Temperature	℃	-30 to +85
Operating Humidity Ratio	RH%	95Max
Safety Standard		UL60950
Weight	g	21.2
Dimensions(WxDxH)	mm	153x21x8.5 (*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.

All specifications are subject to change without notice.

Outline Drawing

Example of label marking
Product name, Lot No., Country of origin, TDK-Lambda logotype, UL standard marking

CXA-0454
H 6Y16 R
MADE IN CHINA
TDK·Lambda

2-φ3.5±0.2

(10)

(3.5)

CN2   CN3

CAUTION
HIGH VOLTAGE

14±0.2   21.5±0.5

(4.0)

Silicone

(10)

10.25
±0.3

107±0.2

153±0.5

Prohibition area of components and pattern (except GND line)

8.5max.

(1.0)

(75)

High-voltage generator ※
(The entire surface within a range of 75mm away from the end of the basein)

※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	53261-0771	1	Molex Inc.	51021-0700
③	Output connector CN2, CN3	SM02 (8.0) B-BHS-1-TB (LF)(SN)	2	JST Mfg. Co., Ltd.	BHR-03VS-1

Terminal Numbers And Functions

Input side CN1

Terminal number	Symbol	Rated voltagex	Remarks	
CN1-1	Vin	12±1.2V	Power 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	Vst (Output)	0V/5V	Alarm output Lump open : 5V	
CN1-7	Vbr/Rbr	0 to 2.5V/0 to 50kΩ	Dimmer terminal	

Output side CN2

Terminal number	Symbol	Rated voltage	Remarks
CN2-1	$V_{HIGH}1$	600Vrms	Output 1
CN2-2	N.C.	—	N.C.
CN2-3	$V_{LOW}1$	(2V)	Output 1 return

Output side CN3

Terminal number	Symbol	Rated voltage	Remarks
CN3-1	$V_{HIGH}2$	600Vrms	Output 2
CN3-2	N.C.	—	N.C.
CN3-3	$V_{LOW}2$	(2V)	Output 2 return

・All specifications are subject to change without notice.

Connections

RL : Load resistance（7W minimum）
CL : Distributed capacity capacitor(3kV minimum)
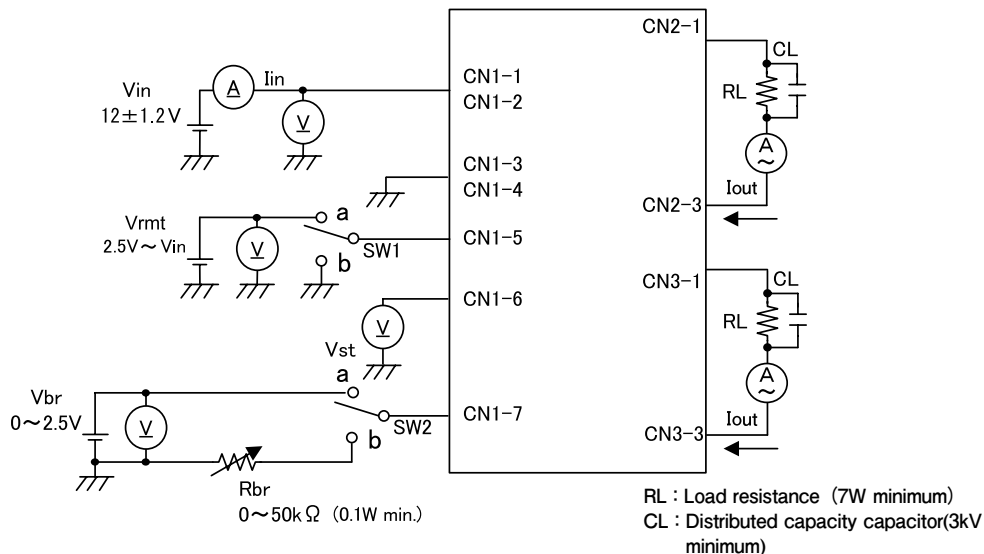
Operate as follows by switching SW1.

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

Operate as follows by switching SW2.

SW2	Unit operation
a	Voltage dimmer Vbr=0 to 2.5V
b	Volume dimmer VR=0 to 50kΩ

※ Vbr=0V:Maximum brightness
   Rbr=0Ω:Maximum brightness

Protection circuit operation

Load condition	Alarm output (CN1-6)[1]	Shut-down function[2]
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: When more than one of RL 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.