CXA-0359

Dimming/Connector Type

■ Features

- ●2-output
- ●Applicable panel size*: 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.
- ●Two stages of dimming range of a Hi mode and a Low mode is selectable.

(Notice) Applicable panel size becomes a standard.

■ Applications



CXA-0359 Specifications (Please refer to each specification before use)

Electrical Characteristics

High-mode

Item	Unit	Symbol	Specification			Condition							
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Rbr(kΩ)	Hi/Low(V)	Ta(℃)	RL(kΩ)	Remark
Output Current	mArms	Iout (Maximum dimmer)	6.5	7.0	7.5	12±0.6	5	2.5	-	5	-10 to +70	70	Voltage dimmer (*1)
			6.5	7.0	7.5	12±0.6	5	-	10	5	-10 to +70	70	Volume dimmer (*1)
		Iout (Minimum dimmer)	2.6	3.5	4.0	12±0.6	5	0	-	5	-10 to +70	70	Voltage dimmer (*1)
			2.6	3.5	4.0	12±0.6	5	-	0	5	-10 to +70	70	Volume dimmer (*1)
Input Current	A	Iin1	-	0.8	1.0	12±0.6	5	2.5	10	5	-10 to +70	70	Remote ON
	mA	Iin2	-		1	12±0.6	0	2.5	10	5	-10 to +70	70	Remote OFF
Frequency	kHz	Freq1	58	63	68	12±0.6	5	2.5	10	5	-10 to +70	70	
	Hz	Freq2(Duty frequency)	310	340	370	12±0.6	5	0		5	-10 to +70	70	
Open Circuit Voltage	Vrms	Vopen	1800	-	2000	11.4min.	5	2.5	10	5	-10 to +70	∞	Open load
Alarm Signal	V	Vst	4.5	5.0	5.5	12±0.6	5	2.5	10	5	-10 to +70	∞	In case of lamp anomaly (*2)
			-	0	0.5	12±0.6	5	2.5	10	5	-10 to +70	70	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.

Low-mode

Item	Unit	Symbol	Specification			Condition							
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Rbr(kΩ)	Hi/Low(V)	Ta(℃)	RL(kΩ)	Remark
Output Current	mArms	Iout (Maximum dimmer)	4.5	5	5.5	12±0.6	5	2.5	-	0 or open	-10 to +70	110	Voltage dimmer (*1)
			4.5	5	5.5	12±0.6	5	-	10	0 or open	-10 to +70	110	Volume dimmer (*1)
		Iout (Minimum dimmer)	1.5	2.2	2.9	12±0.6	5	0	-	0 or open	-10 to +70	110	Voltage dimmer (*1)
			1.5	2.2	2.9	12±0.6	5	-	0	0 or open	-10 to +70	110	Volume dimmer (*1)
Input Current	A	Iin1	-	0.6	0.8	12±0.6	5	2.5	10	0 or open	-10 to +70	110	Remote ON
	mA	Iin2	-		1	12±0.6	0	2.5	10	0 or open	-10 to +70	110	Remote OFF
Frequency	kHz	Freq1	58	63	68	12±0.6	5	2.5	10	0 or open	-10 to +70	110	
	Hz	Freq2(Duty frequency)	310	340	370	12±0.6	5	0		0 or open	-10 to +70	110	
Open Circuit Voltage	Vrms	Vopen	1600	-	1800	11.4min.	5	2.5	10	0 or open	-10 to +70	∞	Open load
Alarm Signal	V	Vst	4.5	5.0	5.5	12±0.6	5	2.5	10	0 or open	-10 to +70	∞	In case of lamp anomaly (*2)
			-	0	0.5	12±0.6	5	2.5	10	0 or open	-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

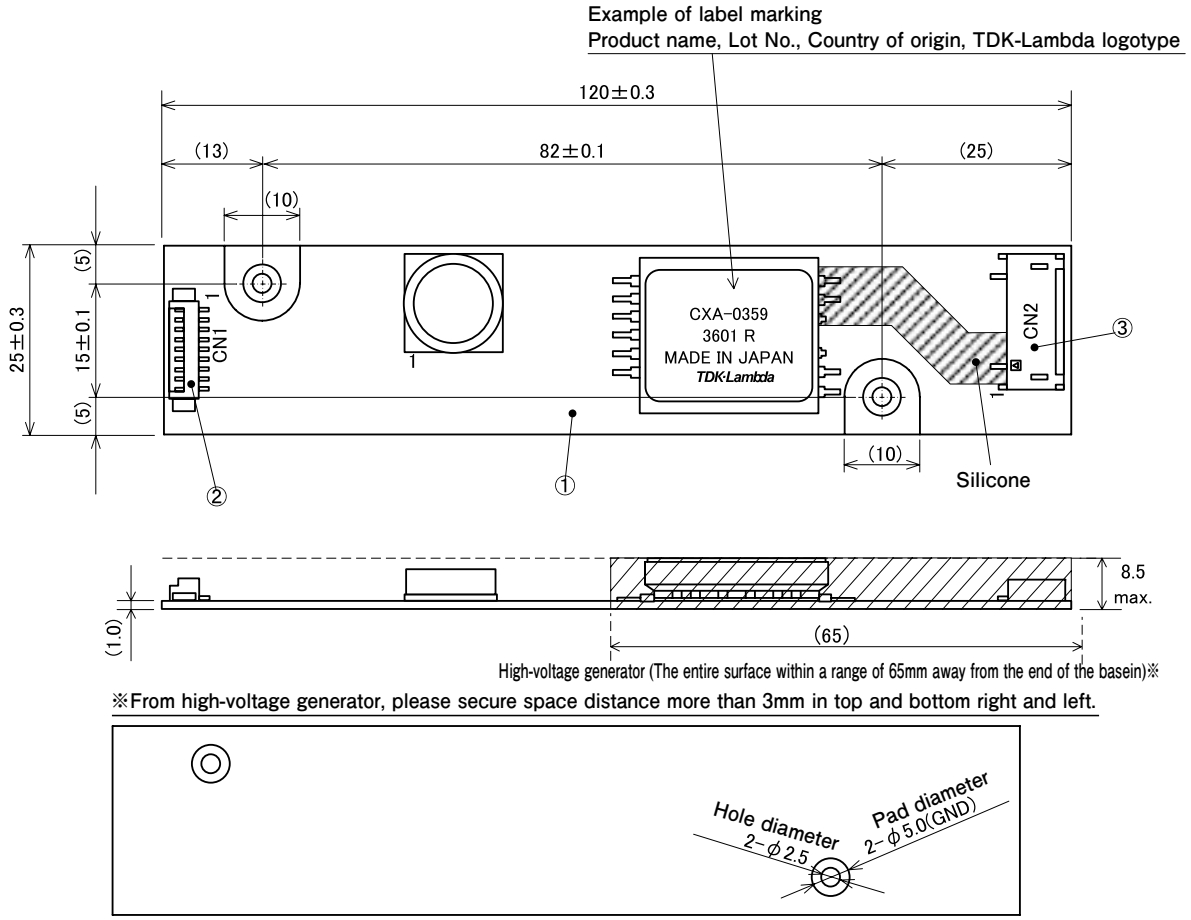
Dimming Function		Yes
Operating Temperature	℃	-10 to +70
Storage Temperature	℃	-30 to +85
Operating Humidity Ratio	RH%	95Max
Safety Standard		—
Weight	g	23
Dimensions(WxDxH)	mm	120x25x8.5 (*3)
Fused Input		Yes
Remote ON／OFF		Yes
Alarm Signal Function		Yes
Shutdown Function		Yes
Silicone Coating on High 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



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	53261-0971	1	Molex Inc.	51021-0900
③	Output connector CN2,CN3	SM03(7-D1) B-BHS-1-TB (LF)(SN)	1	JST Mfg. Co., Ltd.	BHR-04VS-1

Terminal Numbers And Functions

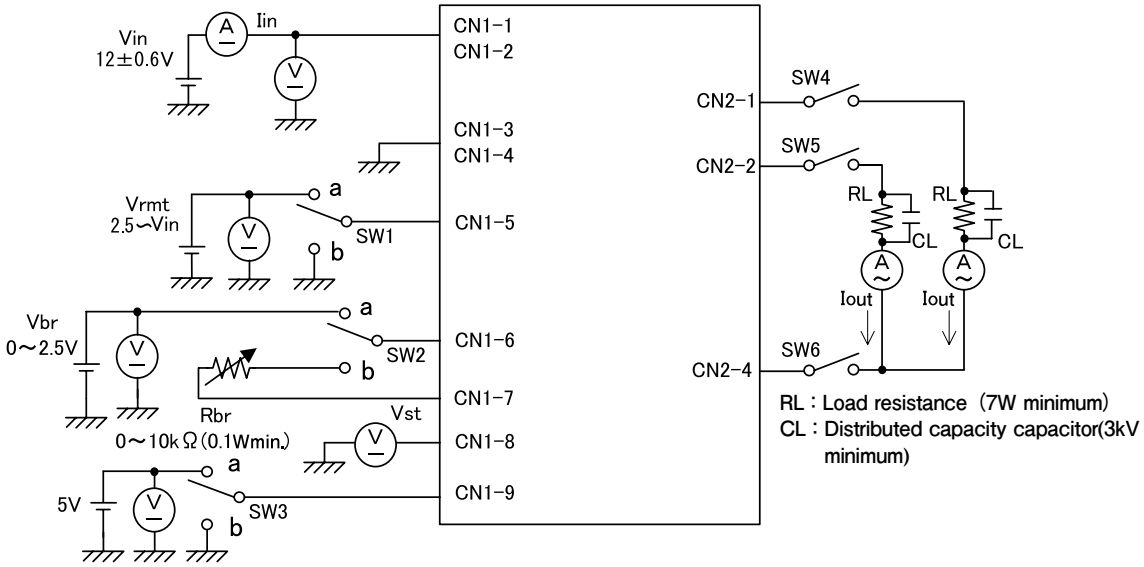
Input side CN1

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 0 to 0.4V : OFF 2.5 to Vin V : ON 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 (Output)	0V/5V	Alarm output Lump open : 5V
CN1-9	H/L	0V/5V	0 to 0.4V : Low-mode 2.5 to Vin : High-mode Open: Low-mode

Output side CN2

Terminal number	Symbol	Rated voltage	Remarks
CN2-1	$V_{HIGH}1$	600Vrms	Output 1
CN2-2	$V_{HIGH}2$	600Vrms	Output 2
CN2-3	N.C.	–	N.C.
CN2-4	V_{LOW}	(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 Vbr=0 to 2.5V
b	Volume dimmer VR=0 to 10kΩ

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

Operate as follows by switching SW3.

SW3	Unit operation
a	High-mode (Lamp current 7mArms/Lamp)
b	Low-mode (Lamp current 5mArms/Lamp)
Open	Low-mode (Lamp current 5mArms/Lamp)

Protection circuit operation

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

※1: In the case of low mode, and more than one of SW4-SW6 in the connection diagram was open, alarm signal will output 5V. (Please make CN1-8 opening in a high mode)
※2: When all lamps were opened, this inverter has included protective function to stop operation in about 10 seconds.