Chipsmall

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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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

F A   MED   MEASURE

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

Electrical Characteristics
High-mode

| Item | Unit | Symbol | Specification | | | Condition | | | | | | | Remark |
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Rbr(kΩ)	Hi/Low(V)	Ta(℃)	RL(kΩ)	
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 | | | | | | | Remark |
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Rbr(kΩ)	Hi/Low(V)	Ta(℃)	RL(kΩ)	
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.
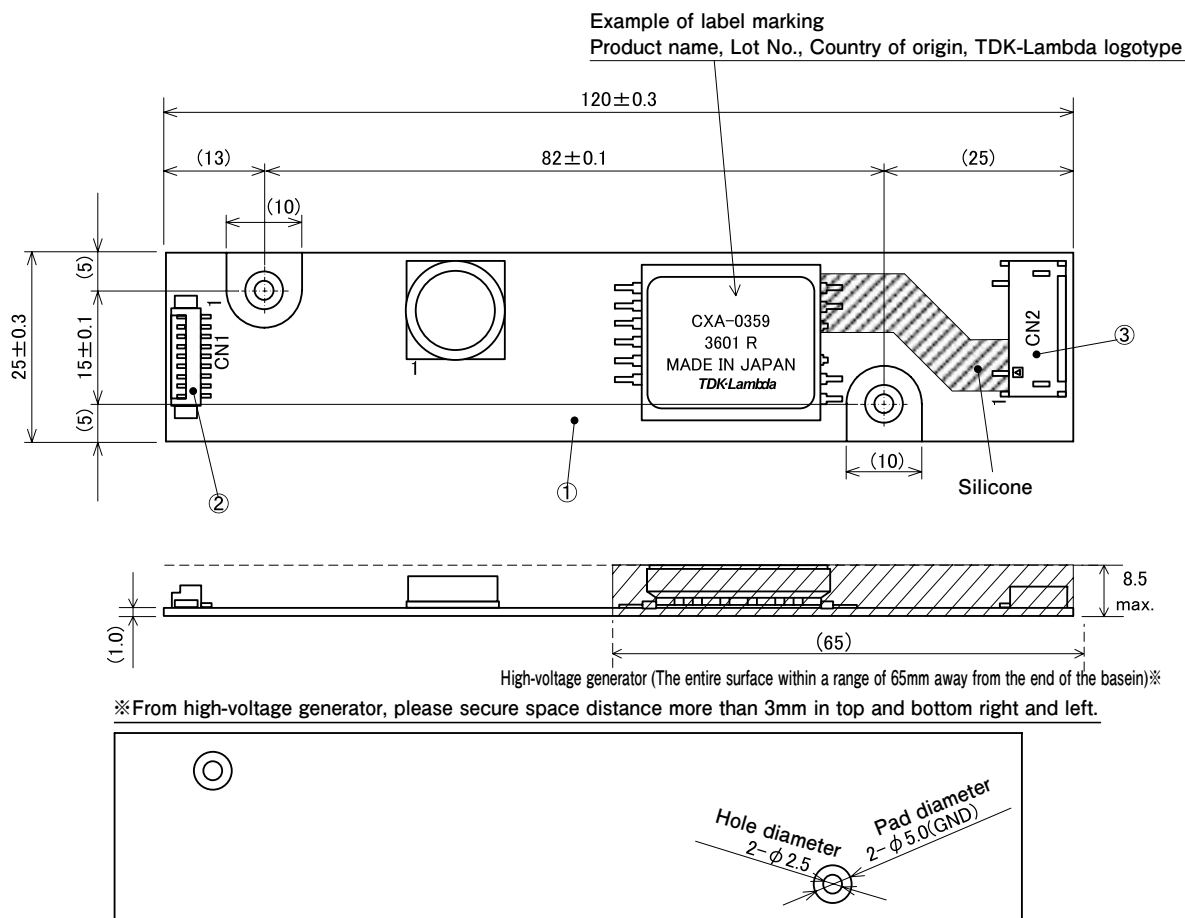
Other Specifications

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

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

120±0.3

(13) 82±0.1 (25)

(10)

(5)

25±0.3 15±0.1

(5)

CN1 1

CXA-0359
3601 R
MADE IN JAPAN
TDK·Lambda

CN2

③

②

①

Silicone

(10)

8.5 max.

(1.0)

(65)

High-voltage generator (The entire surface within a range of 65mm 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.

Hole diameter
2-φ2.5

Pad diameter
2-φ5.0(GND)

unit:mm

Connector

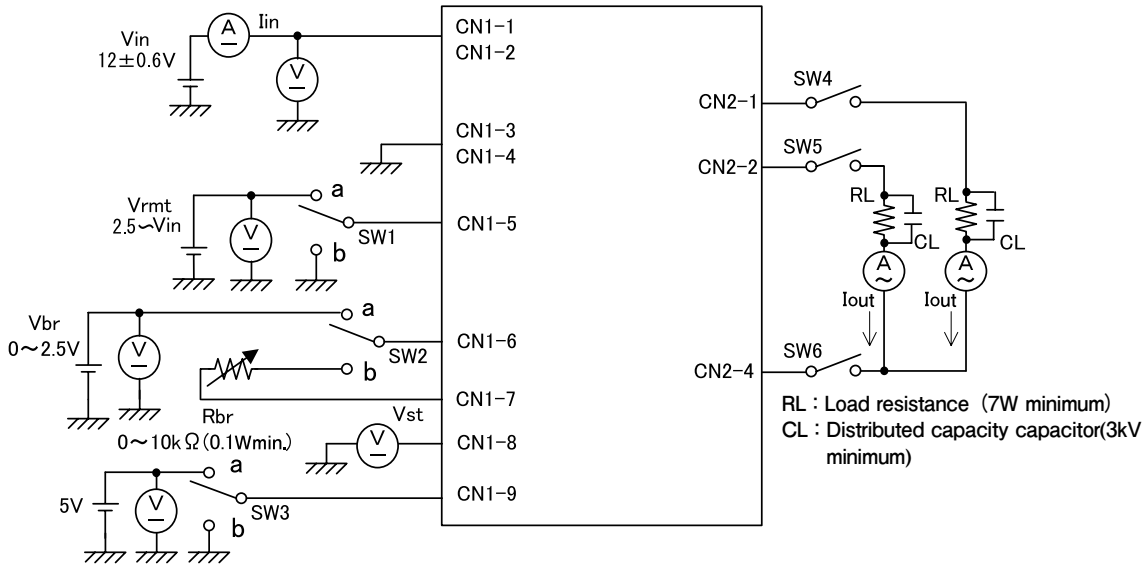| Connector number	Part number	Model/Material	Quantity	Remarks	Recommended applicable connector
①	Printed circuit board PCB	Composite (CEM-3)	1	UL94V-0 t=1.0	—
②	Input connector CN1	53261-0971	1	Molex Inc.	51021-0900
③	Output connector CN2,CN3	SM03 (7-D1) B-BHS-1-TB (LF)(SN)	1	JST Mfg. Co., Ltd.	BHR-04VS-1

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

· 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	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.