

CXA-0503

Features

- 6 outputs
 - UL60950-1 acquisition product
 - Usable in a wide range of temperatures
 - Applicable panel size*: 15 inches
 - With brightness control function (Pulse Width Modulation Dimming).
 - 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-0503 Specifications (Please refer to each specification before use)

Electrical Characteristics

Item	Unit	Symbol	Specification			Condition						
			min	typ	max	Vin(V)	Vrmt(V)	Vbr(V)	Ta(°C)	RL1 to 6(kΩ)	CL1 to 6(pF)(*)3)	Remarks
Output Current	mA	Iout1,2,3,4,5,6 (Maximum dimmer)	6	6.5	7	12±0.6	5	0	23±5	92	10	Voltage dimmer (*1)
			6	6.5	7	12±0.6	5	-	23±5	92	10	Volume dimmer (*1)
		Iout1,2,3,4,5,6 (Minimum dimmer)	3.5	4.3	5.1	12±0.6	5	2.5	-30 to +80	92	10	Voltage dimmer (*1)
			3.5	4.3	5.1	12±0.6	5	-	-30 to +80	92	10	Volume dimmer (*1)
Input Current	A	Iin1	-	2.4	5	12±0.6	5	0	-30 to +80	92	10	Remote ON
	mA	Iin2	-	-	1	12±0.6	0	0	-30 to +80	92	10	Remote OFF
Oscillatory Frequency	kHz	Freq1	45	55	65	12±0.6	5	0	-30 to +80	92	10	
	Hz	Freq2 (Duty frequency)	148	168	188	12±0.6	5	0	-30 to +80	92	10	
Open Circuit Voltage	Vrms	Vopen	1700	1850	2300	11.4±0.05	5	0	-30 to +80	∞	∞	Open load
Alarm Signal	V	Vst	4.5	5	5.5	12±0.6	5	0	-30 to +80	∞	∞	In case of lamp anomaly (*2)
			-	0	0.5	12±0.6	5	0	-30 to +80	92	10	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	-30 to +80
Storage Temperature	°C	-30 to +85
Operating Humidity Ratio	RH%	95max.
Safety Standard		UL60950-1
Weight	g	90typ.
Dimensions (WxDxH)	mm	150x110x9.7 (*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.

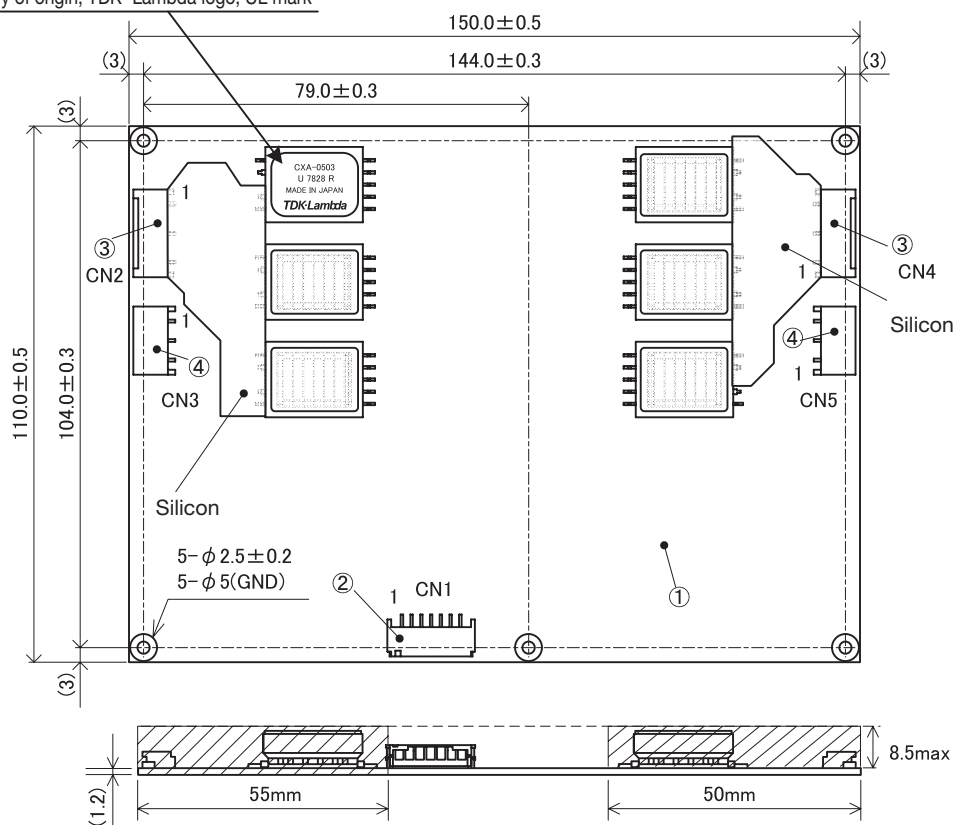
Conformity to RoHS Directive

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

Label display example

Product name, Lot No., country of origin, TDK-Lambda logo, UL mark



High voltage generating area (Complete area of 55mm from board end panel) High voltage generating area (Complete area of 50mm from board end panel)

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

Connector

No.	Component name	Type name	Qty	Remarks	Recommended suitable connector
①	Printed circuit board PCB	Composite (CEM-3)	1	UL94V-0 t=1.2	-
②	Input connector CN1	S7B-PH-SM4-TB(LF)(SN)	1	J.S.T Mfg., Co., Ltd	PHR-7
③	Output connector CN2, CN4	SM03(6.0)B-BHS-1R-TB(LF)(SN)	2	J.S.T Mfg., Co., Ltd	BHR-03(6.0)VS-1
④	Output connector CN3, CN5	SM03(4.0)B-BHS-1-TB(LF)(SN)	2	J.S.T Mfg., Co., Ltd	BHR-03VS-1

Terminal Number & Function

Input side CN1

Terminal No.	Symbol	Rating	Remarks
CN1-1	Vin	12 ± 0.6V	Power source input
CN1-2			
CN1-3	GND	0V	Ground
CN1-4			
CN1-5	Vbr/Rbr	0 to 2.5V/0 to 50kΩ	Dimmer terminal
CN1-6	Vst (output)	0V/5V	Alarm output Lump open: 5V
CN1-7	Vrmt	0V/2.5V to Vin	Remote terminal 0 to 0.4V : OFF 2.5 to Vin : ON

Output side CN2

Terminal No.	Symbol	Rating	Remarks
CN2-1	V _{HIGH1}	600Vrms	Output 1
CN2-2	V _{HIGH2}	600Vrms	Output 2
CN2-3	V _{HIGH3}	600Vrms	Output 3

Output side CN3

Terminal No.	Symbol	Rating	Remarks
CN3-1	V _{LOW1}	(2V)	Output 1 return
CN3-2	V _{LOW2}	(2V)	Output 2 return
CN3-3	V _{LOW3}	(2V)	Output 3 return

Output side CN4

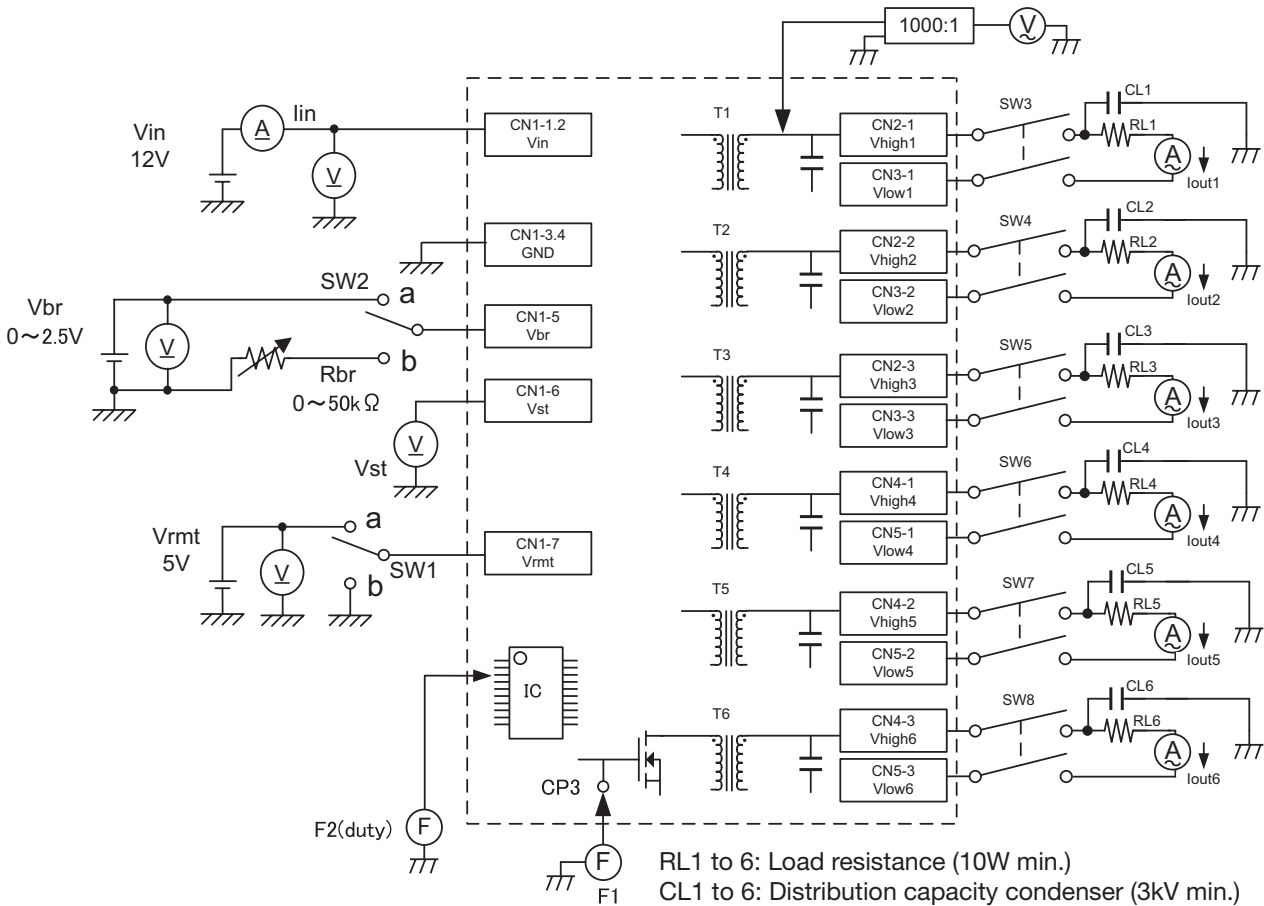
Terminal No.	Symbol	Rating	Remarks
CN4-1	V _{HIGH1}	600Vrms	Output 4
CN4-2	V _{HIGH2}	600Vrms	Output 5
CN4-3	V _{HIGH3}	600Vrms	Output 6

Output side CN5

Terminal No.	Symbol	Rating	Remarks
CN5-1	V _{LOW1}	(2V)	Output 4 return
CN5-2	V _{LOW2}	(2V)	Output 5 return
CN5-3	V _{LOW3}	(2V)	Output 6 return

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)

If any one of the switches from SW3 to SW8 becomes open, shutdown will occur in the following combinations, and a 5V output alarm (Vst) will be output.

SW (OPEN)	Iout1 Iout4	Iout2 Iout5	Iout3 Iout6
SW3	●	○	○
SW4	○	●	○
SW5	○	○	●
SW6	●	○	○
SW7	○	●	○
SW8	○	○	●

○ : Lit
● : Will shut down in approximately 3 seconds

Connector Type/Multi-output