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REPORT

On

COMPONENT - DRIVERS FOR LIGHT-EMITTING-DIODE ARRAYS, MODULES AND CONTROLLERS

***SOLUM CO LTD**
***REPUBLIC OF KOREA**

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component, LED Driver, Isolated output, constant current, Model Nos. PSDV500104U, PSDV500105U, PSDV500106U, PSDV500107U, PSDV500108U.

ELECTRICAL RATINGS:

Model No.	Input Voltage (V)	Input Frequency (Hz)	Input Current (A)	Power Factor	Output Voltage (Vdc)	Output Current (A)
*PSDV500104U, PSDV500105U, PSDV500106U	100-277	50/60	0.8	0.9	30~45.3	1.2
PSDV500107U, PSDV500108U	100-277	50/60	0.8	0.9	30~45.3	1.05

TECHNICAL CONSIDERATIONS (NOT FOR UL FIELD REPRESENTATIVE USE):

USR - Indicates investigation to the U.S. Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products, UL 8750, First Edition and the Standard for Class 2 Power Unit, UL 1310, Sixth Ed.

CNR - Indicates investigation to the Canadian Standard for General Use Power Supplies CSA C22.2 107.1-01, Third Ed.

The units were evaluated for a maximum 50 °C ambient Temperature with the product placed in a still-air oven during temperature test.

Conditions of Acceptability -

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

1. The output of this LED Driver complies with the requirements in the NEC Class 2 limits only.
- *2. The product has **47.5** Vdc maximum output voltage during the test. Even though this output complies with the definition of Class 2 per the Canadian Electrical Code, the output cannot be accessible based on maximum voltage restrictions for Class 2 circuits in the Canadian Electrical Code.
3. The input and output connections have been invested for factory wiring only, connection to supply mains shall be determined in the end product. If the product shall be intended to use in field wiring, the suitability shall be determined in each end-use application.
- *4. The LED driver has been temperature tested in a 50 °C ambient, where the maximum temperatures on outer surface of enclosure above transformer (TM101) shall not exceed 81.2 °C for model PSDV500105U, 82.7 C for model PSDV500104U, 81.4 °C for model PSDV500106U and Tc point on case shall not exceed **78.3** °C for model PSDV500107U, **78.3** °C for model PSDV500108U. The need for further evaluation of the internal components shall be considered if enclosure temperatures exceed this value when subjected to temperature testing in the end product.
5. The product is suitable for use in dry and damp locations.
6. The product is intended to be installed as a built-in component of the end product. The unit shall be installed in compliance with the enclosure, mounting, spacing, casualty, temperature, and segregation requirements of the end product application.
7. The transformer (TM101) employs a Class 130(B) insulation system.
8. Spacings have been evaluated in accordance with the requirements of the Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products, UL 8750, First Edition and Canadian Standard for General Use Power Supplies CSA C22.2 107.1-01, 3rd Ed., Revised January 2006 (Reaffirmed 2011).
9. The unit employs input surge suppression protection not suitable for use in permanently connected products. The suppressed voltage rating is SPD Type 3 applications. The suitability of use in permanently connected products must be determined in the end-product application.
10. The enclosure of this unit does not qualify as a final enclosure and the suitability shall be determined in each end-use application.
11. The unit did not provided grounding connection, an investigation of the proper grounding terminal to the end-product main grounding termination shall be required.

CONSTRUCTION DETAILS:

General - See the Section General.

Printed Wiring Board - R/C (ZPMV2), rated V-1 minimum, evaluated DSR, suitable for the solder time and temperature used by the manufacturer and having an operating temperature rating of at least 105 °C.

Corrosion Protection - Ferrous metal parts are protected against corrosion by plating or painting.

Soldered Connections - All soldered connections are mechanically secured before soldering.

Markings - In addition to the Section General, Each unit is legibly and permanently marked with the following. Marking Label (PGDQ2) shall be rated minimum 90 °C. The following markings shall be also marked on the unit.

1. Recognized Company name, File No., or trademark (If authorized).
2. Model Designation.
3. "Suitable for Class 2 Wiring Methods" or equivalent.
4. Optional - Date Code: see below table,

Mean Digit	Plant	Year	Month	Date	Model Code	Serial No
Example	C1: DSEM C2: Solytech	00~99	1..9, A, B, C	01,02,..31	1~9, A~Z:	0001~9999

5. Factory identification or code, if more than one location.
6. Optional - The polarity of the Input wiring Connection.
Live-Black color, Neutral-White color
7. Optional - Electrical Ratings:
 - Input voltage, current and power factor, or input wattage;
 - Maximum Output voltage and current;
9. Optional - Suitable for dry and damp locations only;
10. Optional - Maximum Ambient Temperature: 50 °C.

Model difference - Model PSDV500104U is identical to model PSDV500105U except model designation, a few components on control circuit and PWB pattern. Model PSDV500106U is identical to model PSDV500104U except model designation, a few components, PWB pattern. Model PSDV500107U is identical to model PSDV500106U except for model designation, **an output current rating**, main transformer(TM101), thermistor, FET, a few components on primary and secondary circuit and PWB pattern. Model PSDV500108U is identical to model PSDV500106U except for model designation, **an output current rating**, main transformer(TM101), thermistor, FET, a few components on primary and secondary circuit and PWB pattern.

MODEL PSDV500105U - FIGS. 1 & 2

General - FIG. 1 and FIG. 2 show external view of the LED Driver. The design, shape and arrangement shall be as illustrated.

1. Housing Base - Aluminum, measuring minimum 0.8 mm thick. overall 196.0 mm by 68.0 mm by 6.8 mm, See ILL. 1 for detailed dimensions.
2. Housing Top Cover - Same as Item 1, except overall 178.4 mm by 66.4 mm by 37.1 mm, secured to Housing Base by eight bend taps, See ILL. 1 for detailed dimensions.
- *3. Input Wire grommet - R/C, minimum **105 °C**, secured in openings of Housing Top Cover, see ILL. 2 for detailed dimensions.
4. Output Wire grommet - R/C, minimum 80 °C, secured in openings of Housing Top Cover, see ILL. 3 for detailed dimensions.
5. Input Lead Wire - R/C (AVLV2), CN, rated minimum 600 V, 105 °C, VW-1, 18 AWG, lead wire extended a minimum 200 mm long outside the enclosure.
6. Output wire - R/C (AVLV2), CN, rated minimum 300 V, 80 °C, 24 AWG.
- 6A. Dimming wire - Optional, R/C (AVLV2), CN, same as item 6.
7. Tubing for output wire - R/C (YDPU2), CN, various, rated 600 V, 125 °C, VW-1.

MODEL PSDV500105U - FIGS. 3 & 4

General - Fig. 3 shows the internal PWB Top view.

Fig. 4 shows the internal PWB Bottom view.

1. Printed Wiring Board (PWB) - R/C (ZPMV2), rated min. 105 °C, V-0. Overall 173 mm by 62 mm by 1.2 mm thick. For trace layout see ILL. 4 (not to scale).
2. Fuse (FS101) - (PRI) R/C (JDYX2), CN, LITTELFUSE WICKMANN WERKE (E67006), Type 369, rated 3.15 A, 300 Vac. Mechanically secured and soldered to PWB.
3. Capacitor (CX101S) - (Hot-to-Neutral), R/C (FOWX2), CN, rated 220 nF, minimum 305 Vac, 110°C.
4. Capacitor (CX102S)- (Hot-to-Neutral), R/C (FOWX2), CN, rated 330 nF, minimum 305 Vac, 110 °C.
5. Varistor (VX101S) - R/C (VZCA2), CN, rated minimum 460 V. SPD Type 3 applications.
6. Thermistor (NT101S) - R/C (XGPU2), CN, limiting NTC device, rated minimum 240 V, **4.8 A**.
7. Optical Isolator (PC101S, PC802S) - R/C (FPQU2), CN, minimum 3750 Vrms isolation voltage, minimum 100 °C.

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

- *8. Bridging Capacitor (CY105S, CY106S) - (Pri. to Sec.), R/C (FOWX2), CN, rated 2.2 nF for CY106S, 0.22 nF for CY105S, rated minimum 300 Vac, **125 °C, class Y1 or antenna coupling.**

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- *9. Capacitor (CY201S) - (Secondary to Metal Chassis Insolation), R/C (FOWX2), CN, rated 2.2 nF, rated minimum 250 Vac, **125 °C.**

*

10. Insulation sheet - R/C (QMFZ2), PET, TORAY INDUSTRIES LTD (E86511), Type Lumirror(#), rated 105 °C, VTM-2, double layer, minimum 0.18 mm total thickness, provided around the inside enclosure. (Relied upon in lieu of spacings with live parts). See ILL. 5 for detailed dimensions.

Alternate - R/C (QMFZ2), PET, SKC LTD (E74359), Type SH71S, Skyrol SG00/SR50/SR53/SR55, rated 105 °C, VTM-2, minimum 0.18 mm total thickness.

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

11. Line Choke (LX101S, LX102S) - Opened type construction, overall 20 mm by 17 mm by 19 mm (L x W x H). Constructed as follows:

Core - Ferrite, Torodial type.

Core Cover - R/C (QMFZ2), ISO designation as LCP, generic thermal index 130 °C.

*Alternate - R/C (QMFZ2), RHODIA ENGINEERING PLASTICS (E44716), Cat. no. A 50H1 (r3)(f2), rated **electrical RTI = 130 °C**, minimum 0.4 mm thick.

Separator (or key) - Same as above Core Cover, and SAMYANG CORPORATION (E121254), Cat. No. 1500GN-30, rated 130 °C when thickness is at least 0.75 mm.

Coil - R/C (OBMW2), two provided, enameled copper wire, each rated 130 °C, overall 0.3 mm diameter, 70 ± 3 turns, 36 mH.

Coil Base - Phenolic, R/C (QMFZ2), CHANG CHUN PLASTICS CO LTD (E59481), Cat No. T-375HF, rated V-0, 150 °C.

Alternate - Same as above except MOMENTIVE SPECIALTY CHEMICALS GMBH (E61040), Cat. No. PF2736(a)(b).

Insulation tube - R/C (QMFZ2), various, ISO designation as PTFE tube, generic thermal index 180 °C.

Alternate - R/C (YCPU2), various, ISO designation as PTFE tube.

See ILL. 6 for detailed construction.

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

12. PFC (LP01) - Model No. FPL50-PFC, manufactured by CLOVER HI-TECH CO LTD (E167514), R/C (OBJY2), Class 130 (B) insulation system, designated by SC-04B, Table II. Open type construction, overall 29.0 mm by 26.5 mm by 21.0 mm. Constructed as follows:

Core - Ferrite, EE Type, Overall 26.5 mm by 19.2 mm by 19.0 mm.

Bobbin - R/C (QMFZ2), SUMITOMO BAKELITE CO LTD (E41429), Phenolic, Type PM-9820, rated V-0, 150 °C, minimum 0.65 mm thick.

Magnet Wire - R/C (OBMW2), Three provided, Enameled copper wire, rated 130 °C, 0.10 mm diameter x 25, 40.5 turn for NP1 winding and R/C (OBJT2), YOUNG CHANG SILICONE CO LTD (E242198), type STW-B, reinforced insulation, rated 130 °C, 0.30 mm diameter, 5 turns for NS1 winding and 3 turns for NS2 winding, wound on bobbin.

Insulation Tape - R/C (OANZ2), JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), type CT or PZ, rated 130 °C.

*Barrier Tape - R/C (OANZ2), JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), type WF, rated 130 °C.

Alternate - same as above, except TAE HWA INDUSTRIAL CO LTD (E92677), Cat. No.H-5673.

Varnish - R/C (OBOR2), NOROO PAINT & COATINGS CO LTD (E93947), type DVB-2085 (*), rated 130 °C.

See ILL. 7 for detailed construction.

Alternate PFC - Same as above except manufactured by LI SHIN ELECTRONIC LIMITED (E140167), designated by LSE-B10, Table III.

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

13. Transformer (TM101) - Model No. SL50-LM, manufactured by LI SHIN INTERNATIONAL ENTERPRISE CORP (E140167), designated by LSE-B10, Table III, overall 42 mm by 34.5 mm by 21.5 mm, Open type construction, constructed as follows:

Core - Ferrite, EER Type, overall 37.6 mm by 30.4 mm by 11.2 mm. Provided with three layers of polyester tape (each 0.025 mm by 11 mm wide) around core.

Bobbin - R/C (QMFZ2), SUMITOMO BAKELITE CO LTD (E41429), Phenolic, Type PM-9820, minimum 0.65 mm thick.

Cap - R/C (QMFZ2), NAN YA PLASTICS CORP PLASTICS 4TH DIV (E130155), Polybutylene Terephthalate, Type 1403G6, minimum 0.75 mm thick.

Primary and Secondary windings - Enameled Copper magnet wire, random wound, R/C (OBMW2), rated minimum 130 °C, provided with one layer of polyester tape, 0.025 mm thick between crossover lead and adjacent windings. See ILL. 8 for more details.

Insulation tape - R/C (OANZ2), JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), type CT.

Alternate - same as above except SYMBIO INC (E50292), Cat No. 35660*@.

Barrier Tape - R/C (OANZ2), JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), type WF.

Alternate - same as above except 3M COMPANY ELECTRICAL MARKETS DIV (EMD) (E17385), type 44(a).

Varnish - R/C (OBOR2), CHEMTECH CO LTD (E258329), type ES925-43D#.

Alternate - same as above except SE KYE CHEMICAL CO LTD (E257443), type SR-337(#) or NOROO PAINT & COATINGS CO LTD (**E93947**), type DVB-2085(*).

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

Insulation is as follows:

Location	Layers	Material	Total Thickness without adhesive (mm)
Outer wrap	Min. 3	Polyester Film Tape	0.075
Primary to Primary	Min. 3	Polyester Film Tape	0.075
Secondary to Secondary	Min. 1	Polyester Film Tape	0.025
Crossover	Min. 1	Polyester Film Tape	0.025
Primary to Core	-	Bobbin	Min. 0.65
Secondary to Core	-	Bobbin	Min. 0.65
Primary to Secondary	-	Bobbin	Distance cl/cr 6.4/9.5 mm.

See ILL. 8 for detailed construction.

14. Bridge Diode (BD101) - Various, rated minimum 600 V, maximum 8.0 A.
15. Bleeding Resistors (RX101S, RX102S, RX103S) - Various, rated **330 Kohm or** 3.3 Mohm, 0.25 Watt.
16. Bulk Capacitor (CP171) - Various, rated 500 V, 220 nF.
17. FET (QP101) - Various, rated minimum 650 V, maximum 11 A.
18. IC (UM101) - (Primary), various, type FSFR1800US or FSFR1800XS.
19. Secondary Rectifier Diodes (DM261, DM262) - Various, rated minimum 100 V, maximum 20 A.
20. Secondary Rectifier Diodes (DM221, DM222) - Various, rated minimum 100 V, maximum 2 A.
21. Electrolytic Capacitors in Secondary output (CM251, CM252) - Various, 100 V, 100 uF, 105 °C.
22. Electrolytic Capacitors in Secondary output (CM271, CM272) - Various, 50 V, 47 uF, 105 °C.

MODEL PSDV500105U - FIGS. 3 & 4 (CON'T)

23. Heatsink (HS1) for BD101 - Metal, Overall 33.0 mm by 31.0 mm by 22.5 mm, overall 1.0 mm thick.
24. Heatsink (HS2) for QP101, QP131, DP172 and UM101 - Metal, Overall 73.0 mm by 20.0 mm by 22.0 mm, overall 1.0 mm thick.
25. Heatsink (HS3) for DM261, DM262 and QM202 - Metal, Overall 50.0 mm by 27.0 mm by 18.0 mm, overall 1.0 mm thick.
26. IC (UP101) - (Primary), various, type SEM3040.
27. IC (UM202) - (Secondary), various, type KIA393F.
28. IC (UM203) - (Secondary), various, type TSM103W.
29. **Bulk Capacitor (CP107) - Various, rated 630 V, 47 nF.**
30. **Bulk Capacitor (CM111) - Various, rated 1000 V, 5.6 nF.**
31. **Electrolytic Capacitor (CP151) - Various, rated 500 V, 82 uF, 105 °C.**
32. **Components - See ILL. 9 for complete list and electrical listing of all components.**

MODEL PSDV500104U - FIGS. 6 & 7

General - FIG. 6 and FIG. 7 show internal view of the LED Driver. The design, shape and arrangement shall be as illustrated. Model PSDV500104U is identical to model PSDV500105U except model designation, a few components and PWB pattern, detailed difference described below;

1. Printed Wiring Board (PWB) - Same as Model PSDV500105U, only difference is trace layout, see ILL. 10 (not to scale).
- *2. Difference components - See ILL. 11 for all different components list compared to model PSDV850105U.

MODEL PSDV500106U - FIGS. 8 & 9

General - FIG. 8 and FIG. 9 show internal view of the LED Driver. The design, shape and arrangement shall be as illustrated. Model PSDV500106U is identical to model PSDV500104U except model designation, a few components and PWB pattern, detailed difference described below;

1. Printed Wiring Board (PWB) - Same as Model PSDV500104U, only difference is trace layout, see ILL. 12 (not to scale).
2. Components - See ILL. 13 for all components list. Critical components were described on basic model PSDV500105U except below items #3 to #10.
3. IC (UM101) - (Primary), type UCC25600D.
4. Heatsink (HS2) for QP101, DP172, QM111 and QM112 - Metal, Overall 85.0 mm by 10.0 mm by 22.0 mm, overall 2.0 mm thick.
5. Transformer (PT101) - Constructed as follow;

Core - Ferrite, EE type, measured overall 10.3 mm **by** 11.0 mm by 4.75 mm (L x W x H). Secured together via 3 layers of tape.

Bobbin - R/C (QMFZ2), Phenolic, rated minimum 150 °C.

Windings - Layer wound. Enameled Copper wire, R/C (OBMW2), rated minimum 130 °C.

Winding information as follow,

Location	Wire Size (Diameter, mm) x Conductor	No. of Turns
SEC (W1, 5-6)	0.2 x 1	26
PRI (W2, 8-1)	0.2 x 1	26
PRI (W3, 3-4)	0.2 x 1	26

Tube - R/C (YDPU2), Rated **Min.** 300 V, **Min.** 130 °C, VW-1, located at #3 pin.

Varnish - R/C (OBOR2), Rated 130 °C.

See ILL. 14 for detailed information of Transformer (PT101).

6. Optical Isolator (PC101S) - R/C (FPQU2), CN, double protection, 5000 Vrms isolation voltage, minimum 100 °C.
7. Bulk Capacitor (CP107) - Various, rated 630 V, 10 nF.
8. Bulk Capacitor (CM111) - Various, rated 1250 V, 5.6 nF.
9. Electrolytic Capacitor (CP151) - Various, rated 500 V, 47 uF, 105 °C.

10. Choke Coil (LP181) - Constructed as follow;

Core - Ferrite, measured overall 8.0 mm by 11.0 mm (diameter by height).

Coil - R/C (OBMW2), Various, Enameled copper wire, rated minimum 130 °C, wire ends secured to PWB by soldering.

Tube - R/C (YDPU2), CN, Various, Rated VW-1, Min. 125 °C, Min 600 V, intended to wrap round a body.

Base - R/C (QMFZ2), CHANG CHUN PLASTICS CO LTD (E59481), T375HF, Phenolic Molding Compound (PMC), min. 0.43 mm thick, rated V-0, 150 °C.

See ILL. 15 for detailed information of Choke Coil (LP181).

MODEL PSDV500107U - FIGS. 10 & 11

General - FIG. 10 and FIG. 11 show internal view of the LED Driver without potting compound. The design, shape and arrangement shall be as illustrated. Model PSDV500107U is identical to model PSDV500106U except model designation, a few components and PWB pattern, detailed difference described below;

No.	Item	CCN	Manufacturer (File Number)	Part/Model Number	Description / Technical Data	(F)I G (I)L L
1	Printed Wiring Board (PWB)	ZPMV2	Various	Various	Same as Model PSDV500106U, only difference is trace layout, see ILL. 16 (not to scale).	I16
2	Components	-	-	-	See ILL. 17 for all components. Critical components were described on model PSDV500106U except below items	I17
3	Thermistor (NT101S)	XGPU2, CN	Various	Various	Rated minimum 240 V, maximum 8.0 A .	
4	FET (QP101)	-	Various	Various	Rated minimum 600 V, maximum 10 A.	
5	Secondary Rectifier Diode (DM261, DM262)	-	Various	Various	Rated minimum 100 V, maximum 20 A.	
6	Heatsink (HS2) for QP101, DP172, QM111 and QM112	-	Various	Various	Metal, Overall 87.0 mm by 24.0 mm by 12.0 mm, overall 2.0 mm thick.	
7	Heatsink (HS3) for QM202, DM261, DM262 and NT201	-	Various	Various	Metal, Overall 50.0 mm by 32.4 mm by 24.0 mm, overall 2.0 mm thick.	
8	Output wire	AVLV2, CN	Various	Various	Rated minimum 300V, 105 °C, 22 AWG.	
9	Capacitor (CX101S)	FOWX2, CN	Various	Various	(Hot-to-Neutral), rated 150 nF, minimum 305 Vac, 110 °C.	
10	Capacitor (CX102S)	FOWX2, CN	Various	Various	(Hot-to-Neutral), rated 220 nF, minimum 305 Vac, 110 °C.	

Winding devices for model PSDV500107U - See below for details.

No.	Item	CCN	Manufacturer (File Number)	Part Number	Rating	(F)IG (I)LL
1	PFC (LP01)	-	-	-	Refer to ILL. 20 for details.	I20
1.1	Core	-	-	-	Ferrite, EE type, measured overall 26.5 mm by 19.2 mm by 19.0 mm (L X W X H).	
1.2	Bobbin	QMFZ2	MOMENTIVE SPECIALTY CHEMICALS GMBH (E61040)	PF2736(a)(b)	Phenolic, rated V-0, 150 °C, minimum 0.46 mm thick.	
1.3	Coil	OBMW2	Various	Various	Enameled copper wire, rated minimum 130 °C.	
	Alternate	OBJT2	Various	Various	Insulated winding wire, rated minimum 130 °C.	
1.4	Insulation tape	OANZ2	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111)	CT	Polyethylene terephthalate film tape, 0.025 mm thick per layer, rated minimum 130 °C.	
	Alternate	OANZ2	SYMBIO INC (E50292)	35660*@	Same as above.	
1.5	Core fixing tape	OANZ2	Various	Various	Rated minimum 130 °C.	
1.6	Barrier tape	OANZ2	Various	Various	Rated minimum 130 °C.	
1.7	Varnish	OBOR2	Various	Various	Rated minimum 130 °C.	

Winding devices for model PSDV500107U - See below for details. (CON'T)

No.	Item	CCN	Manufacturer (File Number)	Part Number	Rating	(F)IG (I)LL
2	Transformer (TM101)	-	-	-	Refer to ILL. 21 for details.	I21
2.1	Electrical insulation system	OBYJ2	YAO SHENG ELECTRONIC CO LTD (E173643)	YCI-130	Rated Class 130 (B) electrical insulation system.	
	Alternate	OBYJ2	JINLONG MACHINERY & ELECTRONICS CO LTD (E342835)	JLS.02	Rated Class 130 (B) electrical insulation system.	
2.2	Core	-	-	-	Ferrite, EE type, overall 23.4 mm by 18.2 mm by 18.4 mm (L X W X H)	
2.3	Bobbin	QMFZ2	Belong to electrical insulation system	Belong to electrical insulation system	Phenolic, rated V-0, 150 °C, minimum 0.65 mm thick.	
2.4	Coil	OBMW2	Belong to electrical insulation system	Belong to electrical insulation system	Enamel copper wire, Rated minimum 130 °C.	
2.5	Insulation tape	OANZ2	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111)	CT	Polyethylene terephthalate film tape, 0.025 mm thick per layer, rated minimum 130 °C, min. 2 layers provided.	
	Alternate	OANZ2	SYMBIO INC (E50292)	35660*@	Same as above.	
2.6	Core fixing tape	OANZ2	Belong to electrical insulation system	Belong to electrical insulation system	Rated minimum 130 °C.	
2.7	Varnish	OBOR2	Belong to electrical insulation system	Belong to electrical insulation system	Rated minimum 130 °C.	

MODEL PSDV500108U - FIGS. 12 & 13

General - FIG. 12 and FIG. 13 show internal view of the LED Driver without potting compound. The design, shape and arrangement shall be as illustrated. Model PSDV500108U is identical to model PSDV500106U except model designation, a few components and PWB pattern, detailed difference described below;

No.	Item	CCN	Manufacturer (File Number)	Part/Model Number	Description / Technical Data	(F)I G (I)L L
1	Printed Wiring Board (PWB)	ZPMV2	Various	Various	Same as Model PSDV500106U, only difference is trace layout, see ILL. 18 (not to scale).	I18
2	Components	-	-	-	See ILL. 19 for all components. Critical components were described on model PSDV500106U except below items	I19
3	Thermistor (NT101S)	XGPU2 , CN	Various	Various	Rated minimum 240 V, maximum 8.0 A .	
4	FET (QP101)	-	Various	Various	Rated minimum 600 V, maximum 10 A.	
5	Secondary Rectifier Diode (DM261, DM262)	-	Various	Various	Rated minimum 100 V, maximum 20 A.	
6	Heatsink (HS2) for QP101, DP172, QM111 and QM112	-	Various	Various	Metal, Overall 87.0 mm by 24.0 mm by 12.0 mm, overall 2.0 mm thick.	
7	Heatsink (HS3) for DM261, DM262 and NT301	-	Various	Various	Metal, Overall 55.0 mm by 24.0 mm by 27.2 mm, overall 2.0 mm thick.	
8	Output wire	AVLV2 , CN	Various	Various	Rated minimum 300V, 105 °C, 22 AWG.	
9	PFC (LP01)	-	-	-	Same as winding device item #1 of model PSDV500107U.	I20
10	Transformer (TM101)	-	-	-	Same as winding device item #2 of model PSDV500107U.	I21
11	Capacitor (CX101S)	FOWX2 , CN	Various	Various	(Hot-to-Neutral), rated 150 nF, minimum 305 Vac, 110 °C.	
12	Capacitor (CX102S)	FOWX2 , CN	Various	Various	(Hot-to-Neutral), rated 220 nF, minimum 305 Vac, 110 °C.	