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Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

Date	Vol	Sec	Pages	Revised Date
2009/11/12	X1	A94	Revised Proc/Rpt Section	

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UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Complementary CCN:	AZSQ, AZSQ7 (Audio/Video Apparatus)
Product:	AC Adapter
Model:	(1) WA-08B05FU, WA-08B05R (2) WA-10I05FU, WA-10I05R (3) WA-13A05FU, WA-13A05R (4) WA-10A06FU, WA-10A06R
Rating:	(1) WA-08B05FU, WA-08B05R: I/P: 100-240 Vac, 50-60 Hz, 0.3 A Max. O/P: 5 Vdc, 1.5 A. (2) WA-10I05FU, WA-10I05R: I/P: 100-240 Vac, 50-60 Hz, 0.3 A Max. O/P: 5 Vdc, 2 A. (3) WA-13A05FU, WA-13A05R: I/P: 100-240 Vac, 50-60 Hz, 0.3 A Max. O/P: 5 Vdc, 2.5 A. (4) WA-10A06FU, WA-10A06R: I/P: 100-240 Vac, 50-60 Hz, 0.3 A Max. O/P: 5.5 Vdc, 1.81 A.
Applicant Name and Address:	ASIAN POWER DEVICES INC 5 LANE 83 LUNG-SOU ST TAOYUAN CITY 330 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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Prepared by: Jack Huang Reviewed by: Derek Xu

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.

ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.

iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

A direct plug-in switching power supply adaptor intended for use with indoor ITE or AV products.

Consists of Class B switching transformer, Y capacitor, MOSFET, optical isolator, and other electronic components, then housed with two-piece plastic enclosures secured together by ultrasonic welding.

Model Differences

Models WA13A05R and WA-10I05R are similar to Model WA08B05R except for output rating and rating of some primary and secondary components.

Model WA-08B05FU is similar to Model WA-08B05R except for fixed or replaceable blade plug and model designation.

Model WA-10I05FU is similar to Model WA-10I05R except for fixed or replaceable blade plug and model designation.

Model WA-13A05FU is similar to Model WA-13A05R except for fixed or replaceable blade plug and model designation.

Model WA-10A06FU is similar to Model WA-10A06R except for fixed or replaceable blade plug and model designation.

Models WA-10A06FU, WA-10A06R are identical to models: WA-10I05FU, WA-10I05R, except for output rating (depend on secondary voltage sampling resistors).

Technical Considerations

- Equipment mobility : direct plug-in
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : N/A
- IT testing, phase-phase voltage (V) : N/A

- Class of equipment : Class II (double insulated)
- Considered current rating (A) : The building installation circuit breaker rated 20 A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : Maximum 3048
- Altitude of test laboratory (m) : Not exceeded 2000
- Mass of equipment (kg) : 0.106 kg
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 degree C
- The means of connection to the mains supply is: Pluggable A, Direct Plug-In Device
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Plug
- The product was investigated to the following additional standards: - The product was investigated to the following additional standards: UL 60065, 7th Edition, 2007-12-11 (Audio, video and similar electronic apparatus - Safety requirements); CAN/CSA-C22.2 No. 60065-03, 1st Edition, 2006-04 + A1:2006 (Audio, video and similar electronic apparatus - Safety requirements). - This equipment is intended to be operated under altitude up to 10,000 ft, so the clearance is multiplied by the altitude correction factor (1.15, linear interpolation used), specified in table A.2 of IEC 60664-1, 1992+A1: 2000.
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: Secondary side of CY1
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Output terminal
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The blade dimension was additional evaluated according to UL1310. to be complied with NEMA configurations in accordance with Wiring Devices - Dimensional Specifications, ANSI/NEMA WD6.

Additional Information

- This equipment is intended to be operated under altitude up to 10,000 ft, so the clearance is multiplied by the altitude correction factor (1.15, linear interpolation used) specified in Table A.2 of IEC 60664-1, 1992+A1: 2000.

- The product covered in this report was additionally evaluated to UL 60065 7th edition and CAN/CSA C22.2 No. 60065:03 for Complementary Listing with UL 60950-1 under this investigation. File E168210 serves as basic file.

Revision 1: add new MODELS: WA-10A06FU and WA-10A06R, which with NEW output rating, the new models are identical to models: WA-10I05FU, WA-10I05R, except for output rating (depend on secondary voltage sampling resistors).

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)

Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Power rating - Class II symbol	Symbol for Class II construction  (60417-2-IEC-5172)
Disconnect device - Pluggable equipment	Statement indicating that the socket-outlet shall be installed near the equipment and shall be easily accessible. (Instruction)
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.
Explanation of Safety-Related Symbols	Explanation shall precede any operating instructions. See Enclosure/Miscellaneous 7-04 for details. Location: On the cover page, the reverse side of cover page, or the very next page of the instruction manual which may optionally provide safety instructions with each carton of shipment to O.E.M. manufacturer.
Outdoor Use (For UL)	"WARNING: To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture"
Wet Location Marking (For C-UL)	"Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus."
Disconnect Device - Mains Plug or Appliance Coupler	Statement indicating that when the mains plug or appliance coupler shall remain readily operable. (Instruction)
Important Safety Instructions	Refer to Enclosure - Miscellaneous 7-03 for details
Service	"CAUTION - These servicing instructions are for use by qualified service

Instruction Manual	personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so."
Factory ID	Refer to Authorization Page
Date of Manufacture	Location: Provided with each product. One of the three types: (1) YYYY.MM.DD. YYYY indicates year, MM=01 -- 12 indicates month, DD=01 - 31 indicates date. (2) Serial No. ym9xxxxxx. Characters y indicates year, and m indicates month. y = 9 indicates year 2009. m = 1-9, A, B, C to indicate January to December. (3) Serial No. Y XXX X yy m dd XXXXXXX XX. Characters yy indicates year, m indicates month, dd indicates date. yy = 09 indicates year 2009. m = 1-9, O (Oct.), N (Nov.), D (Dec.). dd = 01 - 31. See Enclosure/Miscellaneous 7-02 for details.
Shock Hazard Graphical Symbol	See Enclosure/Miscellaneous 7-05 for details.
Fuseible Resistor	Rated resistance and power and type located on or adjacent to fuse resistor or fuseholder.

Special Instructions to UL Representative

Inspect the transformer(s) listed in Production-Line Testing Requirements (Electric Strength Test Special Constructions) per AA1.1- (C). When the tests are conducted at other location, Inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100% routine test specified in Production-Line Testing Requirements (Electric Strength Test Special Constructions) be conducted at the component manufacturer.

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All	T1	N/A	Primary and Secondary	3000 Vrms	4242 Vdc	1 s

Earthing Continuity Test Exemptions - This test is not required for the following models:

All

Electric Strength Test Exemptions - This test is not required for the following models:

N/A

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

N/A

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
--	--	--	--	--	--

TABLE: List of Critical Components

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
01. Label	--	--	Maximum surface temperature specified, or 63 degree C if not specified.	PGDQ2, PGJI2	UL
02. Plastic Enclosure (for models WA-08B05FU, WA-10I05FU, WA-13A05FU)	Sabic Innovative Plastics	945	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 31.6 mm, V-0 minimum, 1.5 mm thick minimum, 120 degree C. See Supplement 4-01 for details.	QMFZ2	UL
02a. Plastic Enclosure (for models WA-08B05FU, WA-10I05FU, WA-13A05FU) (Alternate)	Sabic Innovative Plastics	SE1, SE1X	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 31.6 mm, V-1 minimum, 1.5 mm thick minimum, 105 degree C. See Supplement 4-01 for details.	QMFZ2	UL
02b. Plastic Enclosure (for models WA-08B05FU, WA-10I05FU, WA-13A05FU) (Alternate)	LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.	LUPOY EF-1006F(m)	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 31.6 mm, V-0 minimum, 1.5 mm thick minimum, 115 degree C. See Supplement 4-01 for details.	QMFZ2	UL
03. Plastic Enclosure (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Sabic Innovative Plastics	945	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 33.8 mm, V-0 minimum, 1.5 mm thick minimum, 120 degree C. See Supplement 4-02 for details.	QMFZ2	UL
03a. Plastic Enclosure (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Sabic Innovative Plastics	CH6410	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 33.8 mm, V-0 minimum, 1.5 mm thick minimum, 100 degree C. See Supplement 4-02 for details.	QMFZ2	UL
03b. Plastic Enclosure (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Sabic Innovative Plastics US L L C	SE1, SE1X	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 33.8 mm, V-1 minimum, 1.5 mm thick minimum, 105 degree C. See Supplement 4-02 for details.	QMFZ2	UL
03c. Plastic Enclosure (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.	LUPOY EF-1006F(m)	Two piece construction, secured together with ultrasonic welding, overall 64.8 by 49.5 by 33.8 mm, V-0 minimum, 1.5 mm thick minimum, 115 degree C. See Supplement 4-02 for details.	QMFZ2	UL
04. Plug Holder (for	Sabic Innovative	945	V-0, 1.5 mm thick minimum, 120 degree C, see	QMFZ2	UL

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
models WA-08B05R, WA-10I05R, WA-13A05R)	Plastics Us L L C		Supplement 4-03 for details.		
04a. Plug Holder (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Sabic Innovative Plastics US L L C	SE1, SE1X	V-1, 1.5 mm thick minimum, 105 degree C, see Supplement 4-03 for details.	QMFZ2	UL
04b. Plug Holder (for models WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.	LUPOY EF-1006F(m)	V-0, 1.5 mm thick minimum, 115 degree C, see Supplement 4-03 for details.	QMFZ2	UL
05. PWB	--	--	V-0 or better, 130 degree C. See Enclosure 5-01 for details.	ZPMV2	UL
06. Fuse (FS1)	--	--	T1AL, 250Vac	JDYX/7	UL
06a. Fuse (FS1) (Alternate)	Bel Fuse Inc.	RST series	T1AL, 250Vac	JDYX2/8	UL
06b. Fuse (FS1) (Alternate)	Cooper Bussmann Inc.	SS-5	T1AL, 250Vac	JDYX2/8	UL
06c. Fuse (FS1) (Alternate)	Hollyland Co., Ltd.	5 ET series	T1AL, 250Vac	JDYX2/8	UL
06d. Fuse (FS1) (Alternate)	Conquer Electronics Co., Ltd.	MST series	T1AL, 250Vac	JDYX2/8	UL
06e. Fuse (FS1) (Alternate)	Smart Electronics Inc.	SPT250TE, SPT250TS	T1AL, 250Vac	JDYX2/8	UL
06f. Fuse (FS1) (Alternate)	Littelfuse Wickmann Werke	392	T1AL, 250Vac	JDYX2/8	UL
06g. Fusible Resistor (FS1)	Shenzhen Great Electronics Co., Ltd.	RXF	1W, 0.22 ohms	FPEW2/8	UL
06h. Fusible Resistor (FS1)	Conquer Electronics Co Ltd	SPT	1W, 4.7 ohms	FPEW2/8	UL
06i. Fusible Resistor (FS1)	Shenzhen Great Electronics Co Ltd	RXF	1W, 4.7 ohms	FPEW2/8	UL
06j. Fusible Resistor	Yageo Components	FKN1WS	1W, 4.7 ohms	FPEW2/8	UL

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
(FS1)	(Suzhou) Co Ltd				
06k. Fusible Resistor (FS1)	Asia Akita Electronic Technology (Shenzhen) Co Ltd	KNP	1W, 4.7 ohms	FPEW2/8	UL
06l. Fusible Resistor (FS1)	Shenzhen Xianyang Huaxing Machinery-Electronic Co Ltd	KNP	1W, 4.7 ohms	FPEW2/8	UL
07. Bridge Diode (DB1-DB4)	--	--	Minimum 1A, 600V minimum.	--	--
08. Electrolytic Capacitor (CK1, CK2)	--	--	400V minimum, 6.8-15 uF, minimum 105 degree C.	--	--
09. Inductor (LF1) (Optional)	Asian Power Devices Inc.	082-11493	105 degree C. See Supplement 4-04 for construction details.	--	--
09-1. Core	--	--	Ferrite, overall 14.5 by 10.0 mm, 2.7 mm thick	--	--
09-2. Coil	--	--	Copper magnet wire wound concentrically on core. Two windings, each 0.23 mm diameter by 120 turns, 130 degree C	OBMW2	UL
09-3. Bobbin	Chang Chun Plastics Co., Ltd.	T375J	Two-flange, phenolic, rated V-0, minimum 150 degree C, minimum 0.65 mm thick. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin.	QMFZ2	UL
09-3a. Bobbin (Alternate)	Sumitomo Bakelite Co., Ltd.	PM-9630, PM-9850, PM-9820, PM-9830	Two-flange, phenolic, rated V-0, minimum 150 degree C, minimum 0.65 mm thick. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin.	QMFZ2	UL
09-4. Insulation Tape	--	--	Minimum 130 degree C.	OANZ2	UL
10. Transistor (Q1)	--	--	2 - 6A, minimum 600V.	--	--
11. Current Sensor Resistor (Rs1)	--	--	Minimum 1.2 ohms, minimum 1/4W.	--	--
12. Optical Isolator (PC1)	Lite-On Technology Corp.	LTV-817	Insulation voltage minimum 5000 Vac.	FPQU2	UL

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
12a. Optical Isolator (PC1) (Alternate)	Cosmo Electronics Corp.	K1010, KP1010	Insulation voltage minimum 5000 Vac.	FPQU2	UL
12b. Optical Isolator (PC1) (Alternate)	Everlight Electronics Co., Ltd.	EL817	Insulation voltage minimum 5000 Vac.	FPQU2	UL
12c. Optical Isolator (PC1) (Alternate)	Fairchild Semiconductor Corp.	H11A817, H11A817A, H11A817B, H11A817C, H11A817D,	Insulation voltage minimum 5000 Vac.	FPQU2	UL
13. Bridging Capacitor (CY1) (Optional)	TDK Corp.	CD	Maximum 3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
13a. Bridging Capacitor (CY1) (Optional) (Alternate)	Murata Mfg Co., Ltd.	KX	Maximum 3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
13b. Bridging Capacitor (CY1) (Optional) (Alternate)	Walsin Technology Corp.	AH	Maximum 3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
13c. Bridging Capacitor (CY1) (Optional) (Alternate)	Panasonic Coproration, Panasonic Corporation of North America	NS-A	Maximum 3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
13d. Bridging Capacitor (CY1) (Optional) (Alternate)	Success Electronics Co., Ltd.	SE	Maximum3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
13e. Bridging Capacitor (CY1) (Optional) (Alternate)	Jya-Nay Co., Ltd.	JN	Maximum 3300pF, 250Vac minimum, 125 degree C minimum. Class Y1.	FOWX2	UL
14. Transformer (T1) (for Models WA-08B05FU and WA-08B05R)	Asian Power Devices Inc.	080-80331	See Supplement 4-05 for winding and construction details. A means indicating/referring the manufacturer and type shall be marked.	--	--
14a. Transformer (T1) (for Models WA-10I05FU and WA-10I05R)	Asian Power Devices Inc.	080-80333	See Supplement 4-06 for winding and construction details. A means indicating/referring the manufacturer and type shall be marked.	--	--

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
14b. Transformer (T1) (for Models WA-13A05FU and WA-13A05R)	Asian Power Devices Inc.	080-80334	See Supplement 4-07 for winding and construction details. A means indicating/referring the manufacturer and type shall be marked.	--	--
14-1. Insulation System	Asian Power Devices Inc.	TaYa 130-1	Class B	OBJY2	UL
14-2. Core	--	--	Ferrite, overall 19.7 by 16.5 by 4.8 mm. Provided with two layers of Insulation Tape wrapped around core body.	--	--
14-3. Coil	--	MW28, MW75, MW79, MW80, MW82	Copper magnet wire wound concentrically on bobbin.	OBMW2	UL
14-4. Bobbin	Chang Chun Plastics Co., Ltd.	T375J	Two-flange, phenolic, rated V-0, minimum 150 degree C, minimum 0.65 mm thick. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin.	QMFZ2	UL
14-4a. Bobbin (Alternate)	Sumitomo Bakelite Co., Ltd.	PM-9630, PM-9850, PM-9820, PM-9830	Two-flange, phenolic, rated V-0, minimum 150 degree C, minimum 0.65 mm thick. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin.	QMFZ2	UL
14-5. Insulation Tape	3M Company Electrical Markets Div (Emd)	1350F-1, 1318-1	Minimum 130 degree C.	OANZ2	UL
14-5a. Insulation Tape (Alternate)	Nitto Denko Corp.	31CT-1, 31CT-2.	Minimum 130 degree C.	OANZ2	UL
14-5b. Insulation Tape (Alternate)	Symbio Inc.	35660, 35661	Minimum 130 degree C.	OANZ2	UL
14-5c. Insulation Tape (Alternate)	Jingjiang Yahua Pressure Sensitive Glue Co., Ltd.	CT, PZ, WF	Minimum 130 degree C.	OANZ2	UL
14-6. Tubing	Zeus Industrial Products Inc.	TFE-LW-150, TFE-TW-300,	200 degree C.	YDPU2	UL

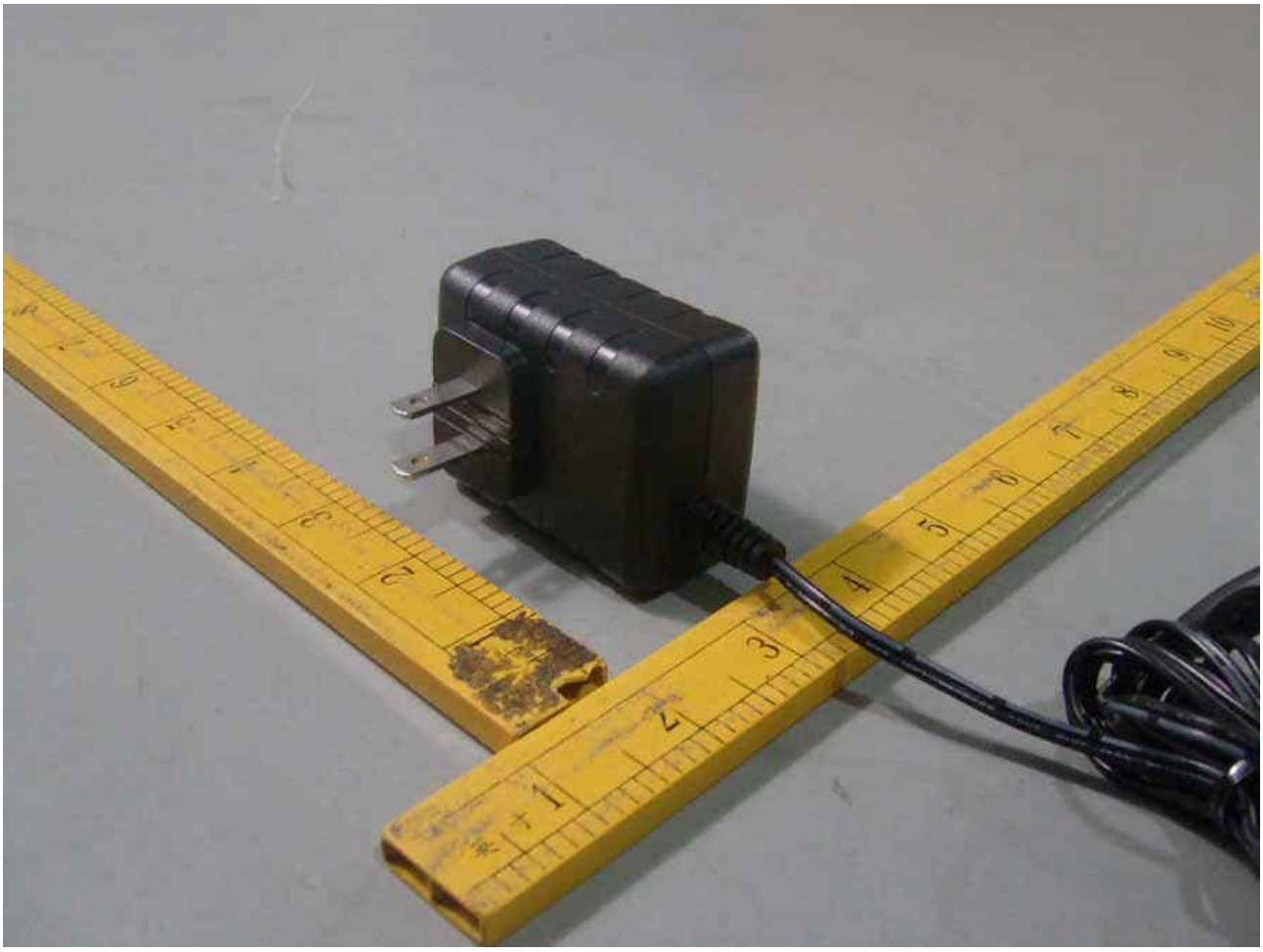
Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
		TFE-SW-600			
14-6a. Tubing (Alternate)	Great Holding Industrial Co., Ltd.	TFL, TFS, TFT	200 degree C.	YDPU2	UL
14-7. Varnish	Elantas Electrical Insulation Elantas Pdg Inc.	468-2(+), 468-2FC(+)	Minimum 130 degree C.	OBOR2	UL
14-7a. Varnish (Alternate)	John C Dolph Co.	BC-346A, BC-346B	Minimum 200 degree C.	OBOR2	UL
14-8. Triple insulation wire	Ta Ya Electric Wire & Cable Co., Ltd.	TILW-B TILW-E TILW-F	130 degree C.	OBJT2	UL
15. Internal Wiring (Primary)	--	--	FEP, PTFE, PVC, TFE, neoprene, polyamide or marked VW-1 or FT-1; minimum 300 V, 80 degree C. Routed away from sharp edges, moving parts. routed away from Secondary parts.	AVLV2	UL
16. Glue	--	--	V-2 minimum, provided on CK1, LF1, CK2, Ch1, secondary wire of T1.	QMFZ2	UL
17. Output Cord and Strain Relief (For LPS)	--	--	Non-detachable, maximum 3.05 m long, FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1or FT-1; minimum 30 V, 80 degree C.	AVLV2	UL
18. Connectors and Receptacles (Sec.) (ELV, SELV)	--	DC Jack	Minimum 30 V	ECBT2, RTRT2	UL
18a. Connectors and Receptacles (Sec.) (ELV, SELV) (Alternate)	--	DC Jack	Copper alloy pins housed in bodies of (QMFZ2), and V-2 minimum.	QMFZ2	UL
19. Mylar Sheet (for model WA-08B05R, WA-10I05R, WA-13A05R)	Mianyang Longhua Film Co., Ltd.	PP-BK17, PP-BK18	T-shaped, VTM-0, 100 degree C, overall 56.0 by 33.5 mm, minimum 0.4 mm thick. See Supplement 4-09 for details.	QMFZ2	UL
19a. Mylar Sheet (for model WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Sabic Innovative Plastics Us L L C	FR1(E) (GG)	T-shaped, VTM-0, 125 degree C, overall 56.0 by 33.5 mm, minimum 0.4 mm thick. See Supplement 4-09 for details.	QMFZ2	UL
19b. Mylar Sheet (for	Sabic Innovative	FR700(GG),	T-shaped, V-0, 125 degree C, overall 56.0 by 33.5	QMFZ2	UL

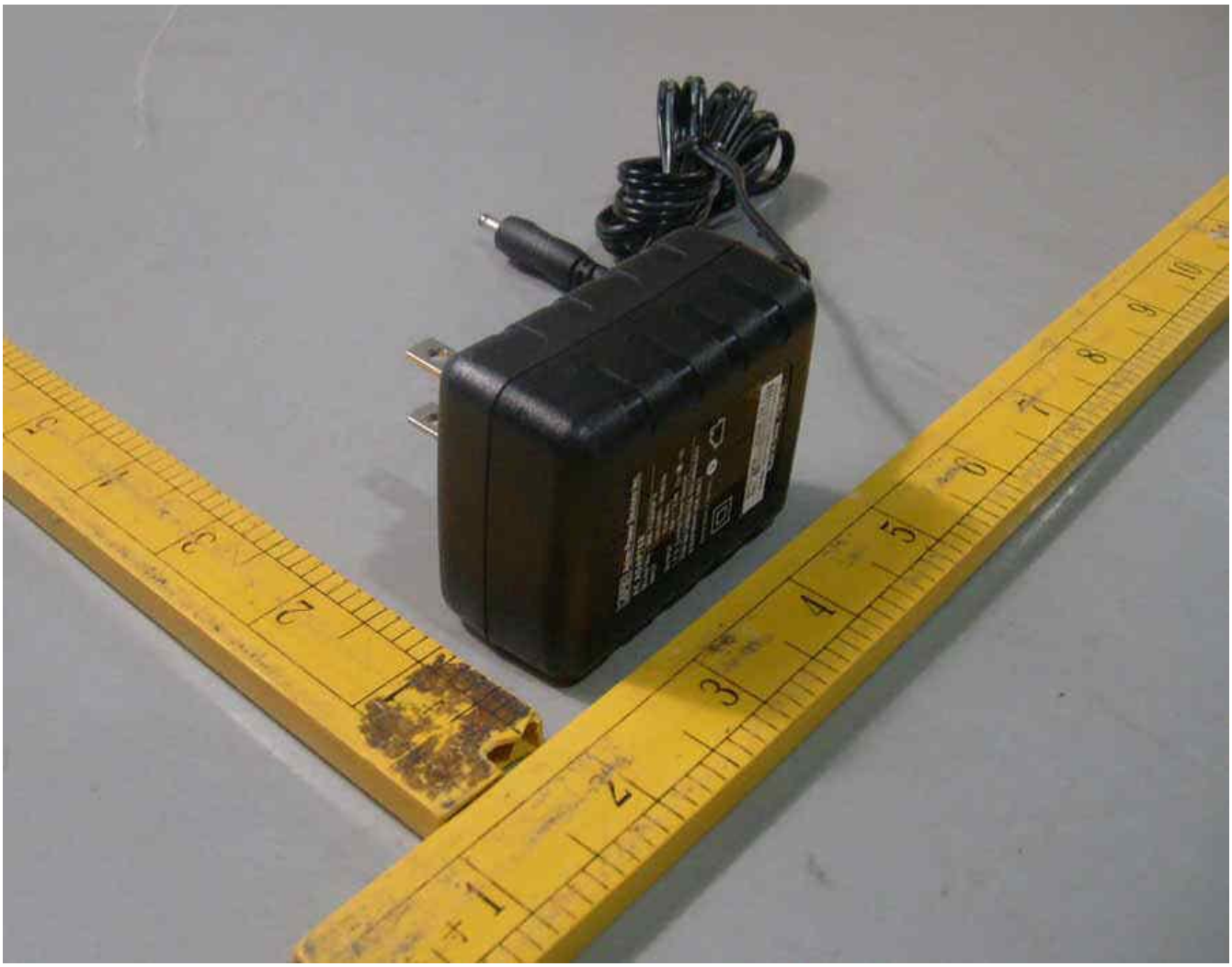
Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
model WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Plastics Us L L C	FR25A	mm, minimum 0.4 mm thick. See Supplement 4-09 for details.		
19c. Mylar Sheet (for model WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Formex,Div Of Il Tool Works Inc.,Frmrly Fastex,Div Of Il Tool Works Inc.	FORMEX GK-(a)(b)(f2)	T-shaped, V-0, 115 degree C, overall 56.0 by 33.5 mm, minimum 0.4 mm thick. See Supplement 4-09 for details.	QMFZ2	UL
19d. Mylar Sheet (for model WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Formex,Div Of Il Tool Works Inc.,Frmrly Fastex,Div Of Il Tool Works Inc.	FORMEX-(a)(b)(f1)	T-shaped, V-0, 105 degree C, overall 56.0 by 33.5 mm, minimum 0.41 mm thick. See Supplement 4-09 for details.	QMFZ2	UL
19e. Mylar Sheet (for model WA-08B05R, WA-10I05R, WA-13A05R) (Alternate)	Formex,Div Of Il Tool Works Inc.,Frmrly Fastex,Div Of Il Tool Works Inc.	FORMEX-(a)(b)(f2)	T-shaped, V-0, 95 degree C, overall 56.0 by 33.5 mm, minimum 0.4 mm thick. See Supplement 4-09 for details.	QMFZ2	UL
20. Blade	--	--	Solid copper alloy, non-polarized secured internal wire by soldering than soldering to PWB and are located minimum 5.1 mm from edge of enclosure. See Supplement 4-08 for details.	--	--

Enclosures

Type	Supplement Id	Description
Photographs	3-01	Overall View 1 for Models WA-08B05FU, WA-10I05FU, and WA-13A05FU
Photographs	3-02	Overall View 2 for Models WA-08B05FU, WA-10I05FU, and WA-13A05FU
Photographs	3-03	Internal View for Models WA-08B05FU, WA-10I05FU, and WA-13A05FU
Photographs	3-04	Overall View 1 for Models WA-08B05R, WA-10I05R, and WA-13A05R
Photographs	3-05	Overall View 2 for Models WA-08B05R, WA-10I05R, and WA-13A05R
Photographs	3-06	Internal View for Models WA-08B05R, WA-10I05R, and WA-13A05R
Photographs	3-07	Removable Plug Side View 1 for Models WA-08B05R, WA-10I05R, and WA-13A05R
Photographs	3-08	Removable Plug Side View 2 for Models WA-08B05R, WA-10I05R, and WA-13A05R
Photographs	3-09	PWB Trace Side View for All Models
Photographs	3-10	PWB Component Side View for Models WA-08B05FU and WA-08B05R
Photographs	3-11	PWB Component Side View for Models WA-10I05FU and WA-10I05R
Photographs	3-12	PWB Component Side View for Models WA-13A05FU and WA-13A05R
Photographs	3-13	Overall View of WA-10A06FU, WA-10A06R
Diagrams	4-01	Enclosure Drawing for Models WA-08B05FU, WA-10I05FU, and WA-13A05FU
Diagrams	4-02	Enclosure Drawing for Models WA-08B05R, WA-10I05R, and WA-13A05R
Diagrams	4-03	Plug Holder for Models WA-08B05R, WA-10I05R, and WA-13A05R
Diagrams	4-04	Inductor LF1 for All Models
Diagrams	4-05	Transformer T1 for Models WA-08B05FU and WA-08B05R
Diagrams	4-06	Transformer T1 for Models WA-10I05FU and WA-10I05R
Diagrams	4-07	Transformer T1 for Models WA-13A05FU and WA-13A05R
Diagrams	4-08	Blade for NEMA 1-15P
Diagrams	4-09	Mylar Sheet for Models WA-08B05R, WA-10I05R, and WA-13A05R
Schematics + PWB	5-01	PWB Layout

Manuals		
Miscellaneous	7-01	Additional Test Table
Miscellaneous	7-02	Date Code
Miscellaneous	7-03	Important safety instructions
Miscellaneous	7-04	Explanation of Safety Related Symbols
Miscellaneous	7-05	Shock Hazard Graphical Symbol
Miscellaneous	7-06	LPS for WA-10A06R



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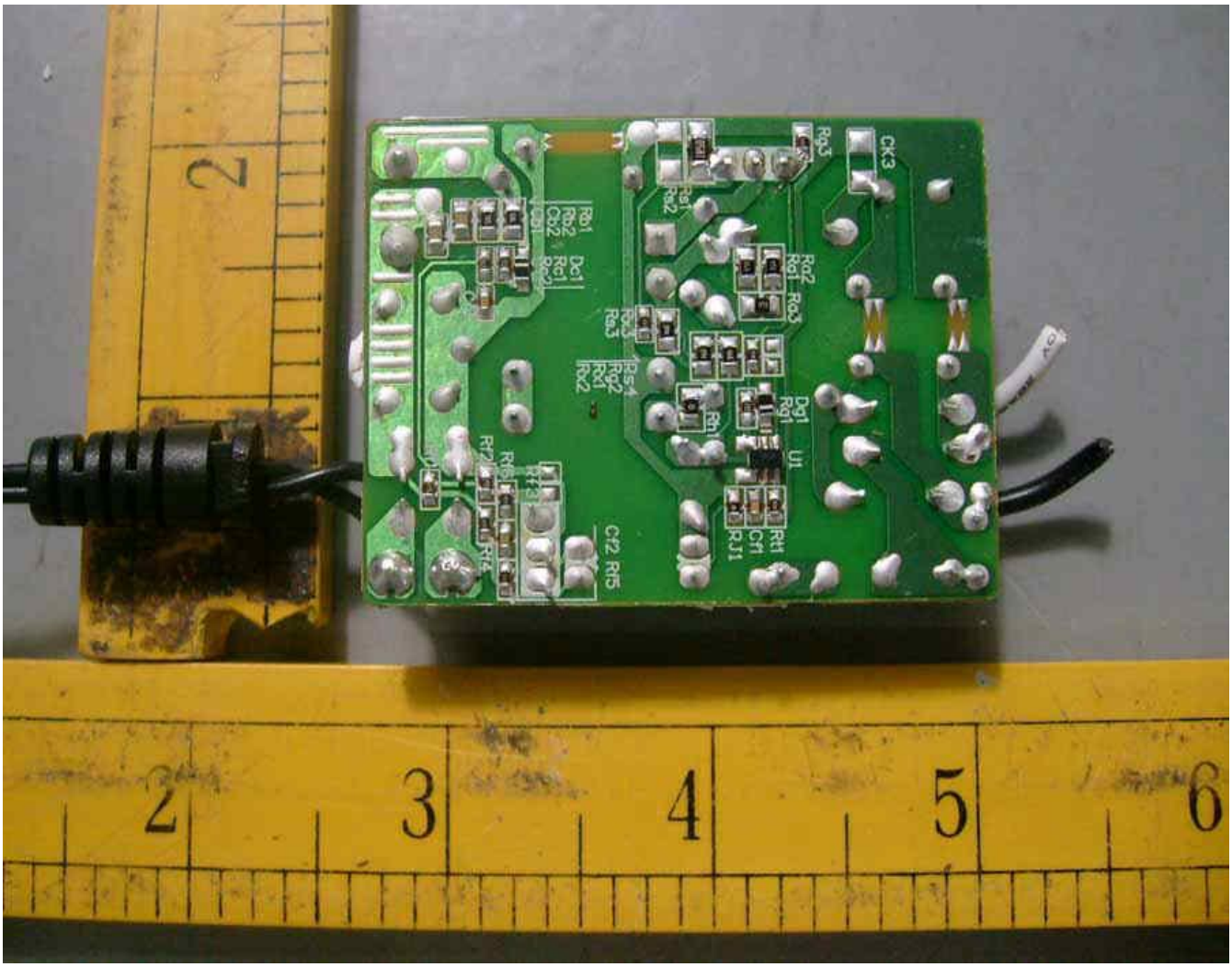
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Ro3
CK3
Rs1
Rs2
Ro2
Ro1
Ro3
Rs3
Rs2
Rx1
Rx2
Dg1
Rg1
U1
Rf1
Cf1
Rj1
Cf2 Rf5
Rf4
Rf3


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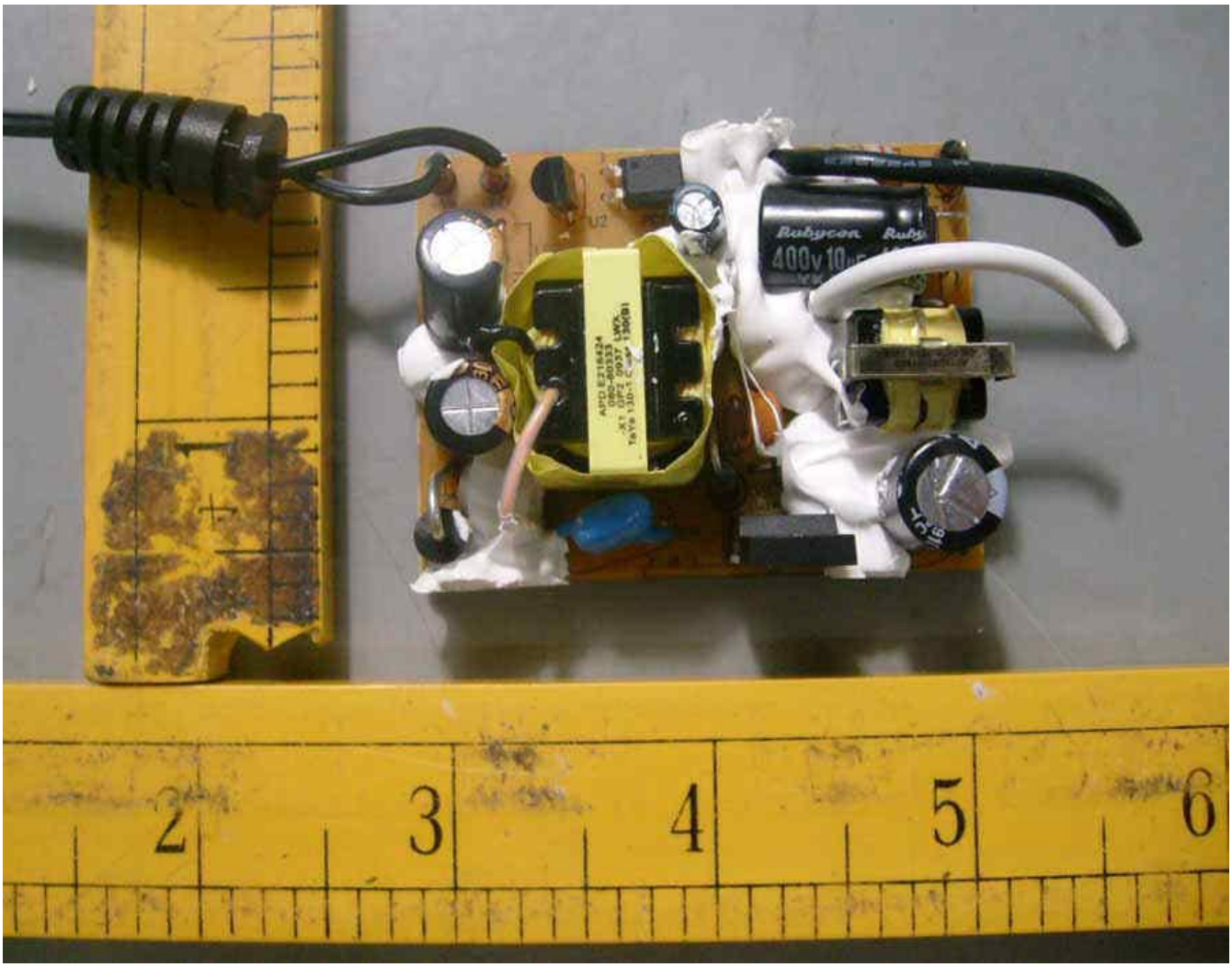
Rubycon
400v 10
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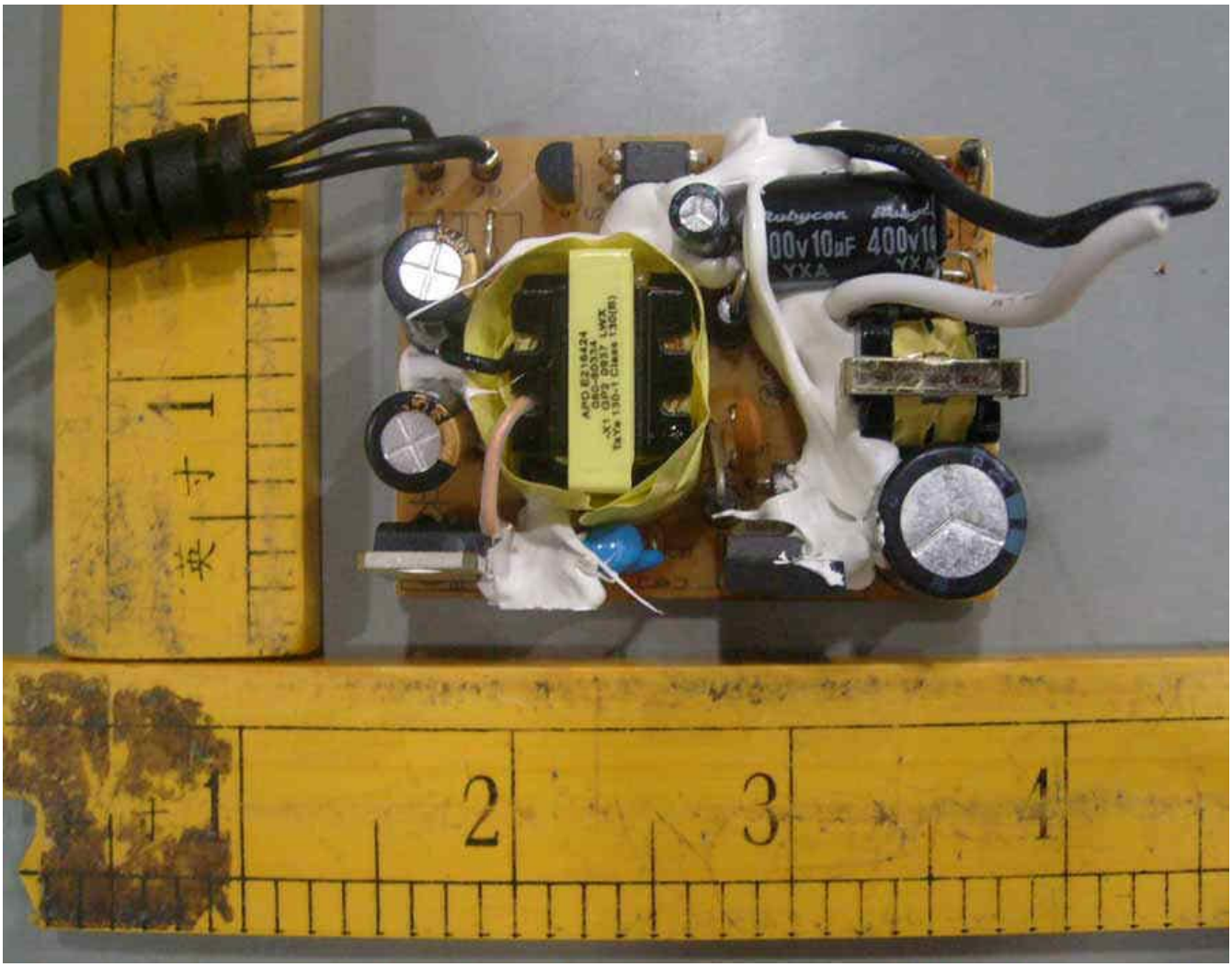
00v10uF
400v10
YXA
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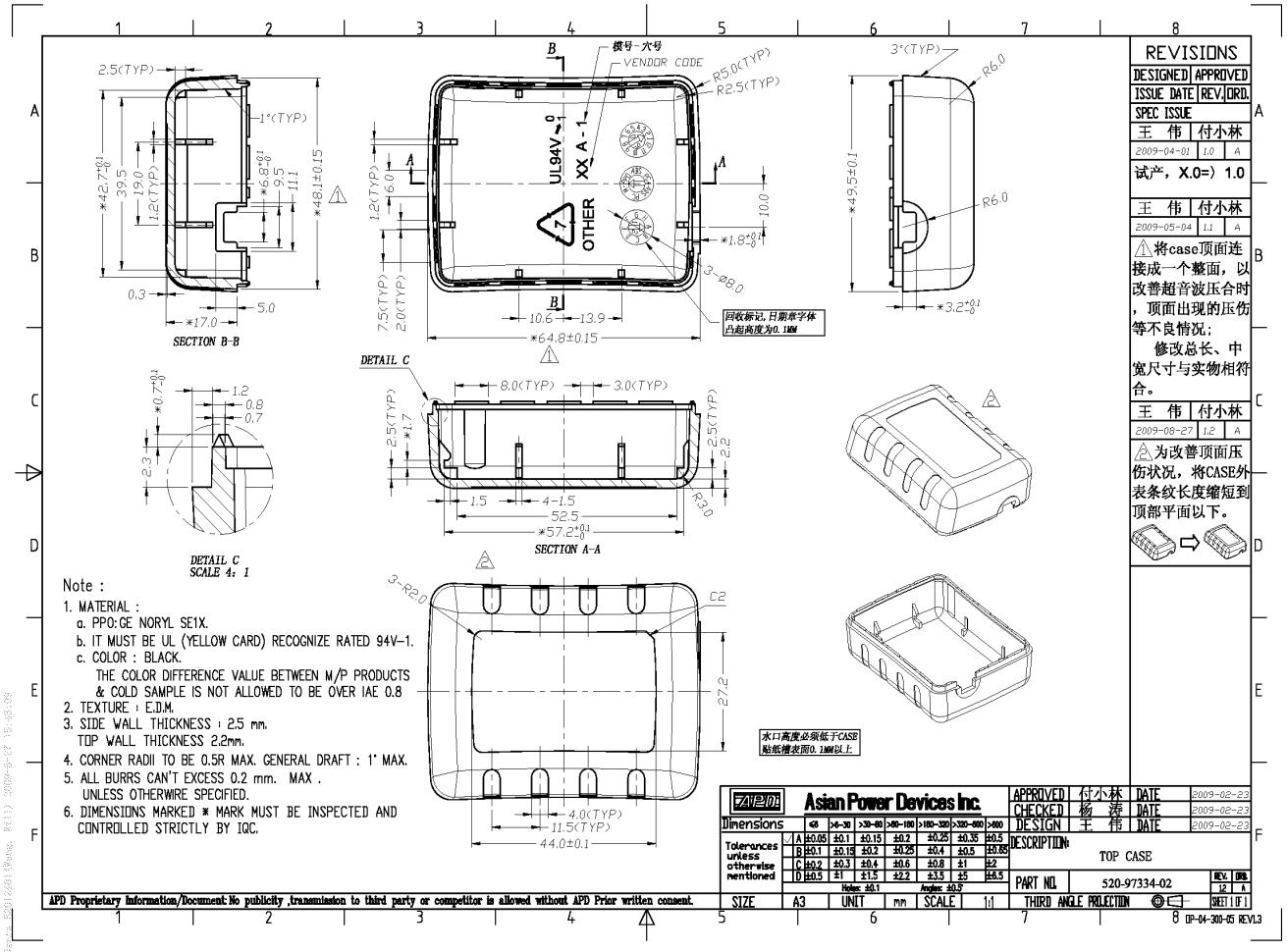


Note :

1. MATERIAL :
   a. PPO:GE NORYL SE1X.
   b. IT MUST BE UL (YELLOW CARD) RECOGNIZE RATED 94V-1.
   c. COLOR : BLACK.
      THE COLOR DIFFERENCE VALUE BETWEEN M/P PRODUCTS & COLD SAMPLE IS NOT ALLOWED TO BE OVER IAE 0.8
2. TEXTURE : E.D.M.
3. SIDE WALL THICKNESS : 2.5 mm.
   TOP WALL THICKNESS 2.2mm.
4. CORNER RADII TO BE 0.5R MAX. GENERAL DRAFT : 1° MAX.
5. ALL BURRS CAN'T EXCESS 0.2 mm. MAX .
   UNLESS OTHERWIRE SPECIFIED.
6. DIMENSIONS MARKED * MARK MUST BE INSPECTED AND CONTROLLED STRICTLY BY IQC.

REVISIONS

DESIGNED	APPROVED
ISSUE DATE	REV.	DRD.
SPEC ISSUE		
王 伟	付小林	
2009-04-01	1.0	A

试产，X.0=）1.0

王 伟	付小林	
2009-05-04	1.1	A

⚠将case顶面连接成一个整面，以改善超音波压合时，顶面出现的压伤等不良情况；
修改总长、中宽尺寸与实物相符合。

王 伟	付小林	
2009-08-27	1.2	A

⚠为改善顶面压伤状况，将CASE外表条纹长度缩短到顶部平面以下。

Asian Power Devices Inc.

	APPROVED	付小林	DATE	2009-02-23
	CHECKED	杨 清	DATE	2009-02-23
	DESIGN	王 伟	DATE	2009-02-23

Dimensions	≤6	>6-30	>30-80	>80-180	>180-320	>320-600	>600
A	±0.05	±0.1	±0.15	±0.2	±0.25	±0.35	±0.5
B	±0.1	±0.15	±0.2	±0.25	±0.4	±0.5	±0.65
C	±0.2	±0.3	±0.4	±0.6	±0.8	±1	±2
D	±0.5	±1	±1.5	±2.2	±3.5	±5	±6.5

Holes: ±0.1 Angles: ±0.5°

Tolerances unless otherwise mentioned

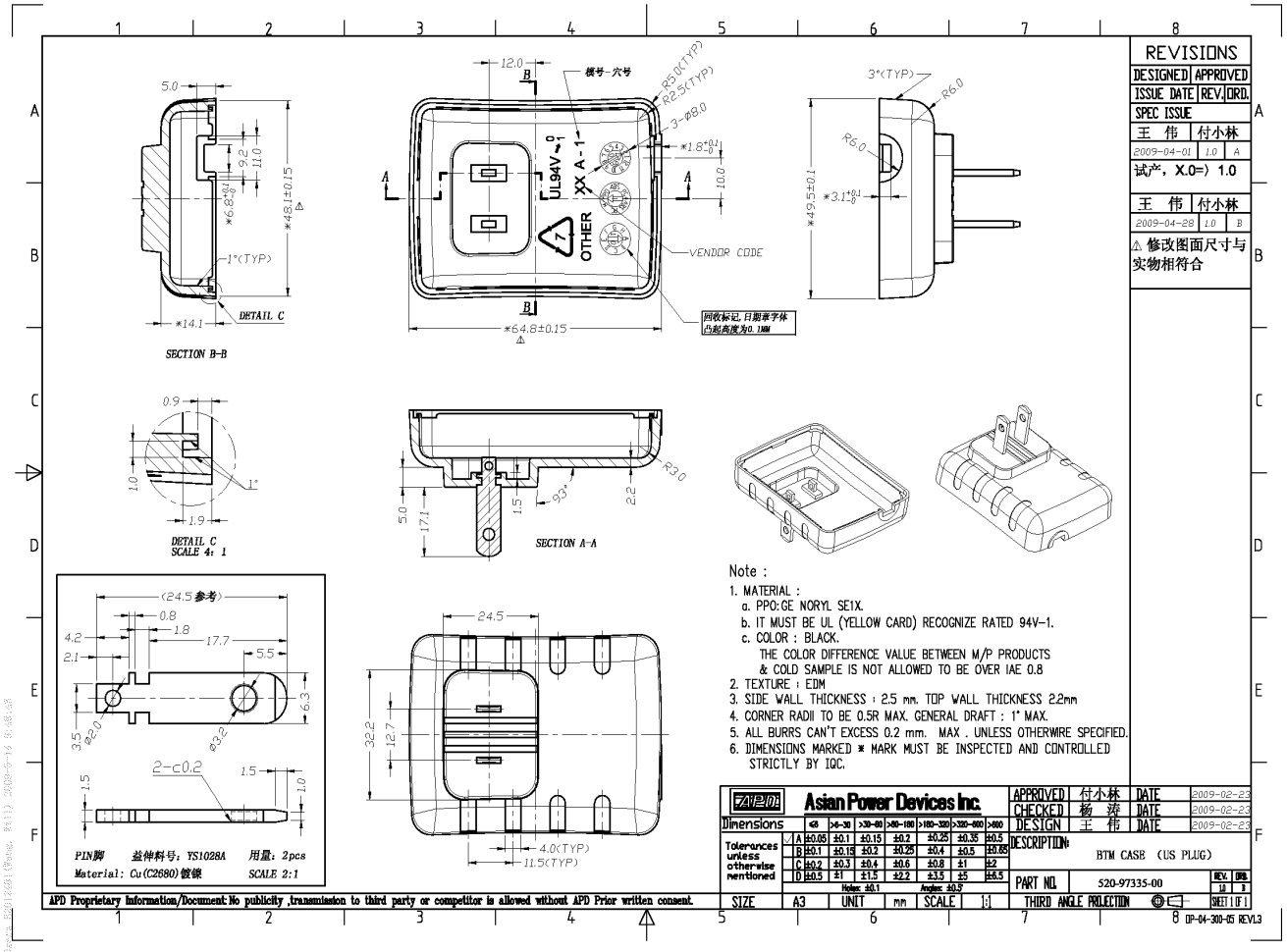
DESCRIPTION: TOP CASE

PART NO. 520-97334-02 REV. 1.2 DRB. A

THIRD ANGLE PROJECTION SHEET 1 OF 1

SIZE	A3	UNIT	mm	SCALE	1:1

DP-04-300-05 REV1.3



Note :
1. MATERIAL :
   a. PPO:GE NORYL SE1X.
   b. IT MUST BE UL (YELLOW CARD) RECOGNIZE RATED 94V-1.
   c. COLOR : BLACK.
      THE COLOR DIFFERENCE VALUE BETWEEN M/P PRODUCTS & COLD SAMPLE IS NOT ALLOWED TO BE OVER IAE 0.8
2. TEXTURE : EDM
3. SIDE WALL THICKNESS : 2.5 mm. TOP WALL THICKNESS 2.2mm
4. CORNER RADII TO BE 0.5R MAX. GENERAL DRAFT : 1° MAX.
5. ALL BURRS CAN'T EXCESS 0.2 mm. MAX . UNLESS OTHERWIRE SPECIFIED.
6. DIMENSIONS MARKED * MARK MUST BE INSPECTED AND CONTROLLED STRICTLY BY IQC.

REVISIONS			
DESIGNED	APPROVED		
ISSUE DATE	REV.	ORD.	
SPEC ISSUE			
王 伟	付小林		
2009-04-01	1.0	A	
试产, X.0=) 1.0			
王 伟	付小林		
2009-04-28	1.0	B	
⚠ 修改图面尺寸与实物相符合			

Dimensions	<6	>6-30	>30-80	>80-180	>180-320	>320-600	>600
A	±0.05	±0.1	±0.15	±0.2	±0.25	±0.35	±0.5
B	±0.1	±0.15	±0.2	±0.25	±0.4	±0.5	±0.65
C	±0.2	±0.3	±0.4	±0.6	±0.8	±1	±2
D	±0.5	±1	±1.5	±2.2	±3.5	±5	±6.5

Holes: ±0.1 Angles: ±0.5°

Tolerances unless otherwise mentioned

Asian Power Devices Inc.

APPROVED	付小林	DATE	2009-02-23
CHECKED	杨 涛	DATE	2009-02-23
DESIGN	王 伟	DATE	2009-02-23

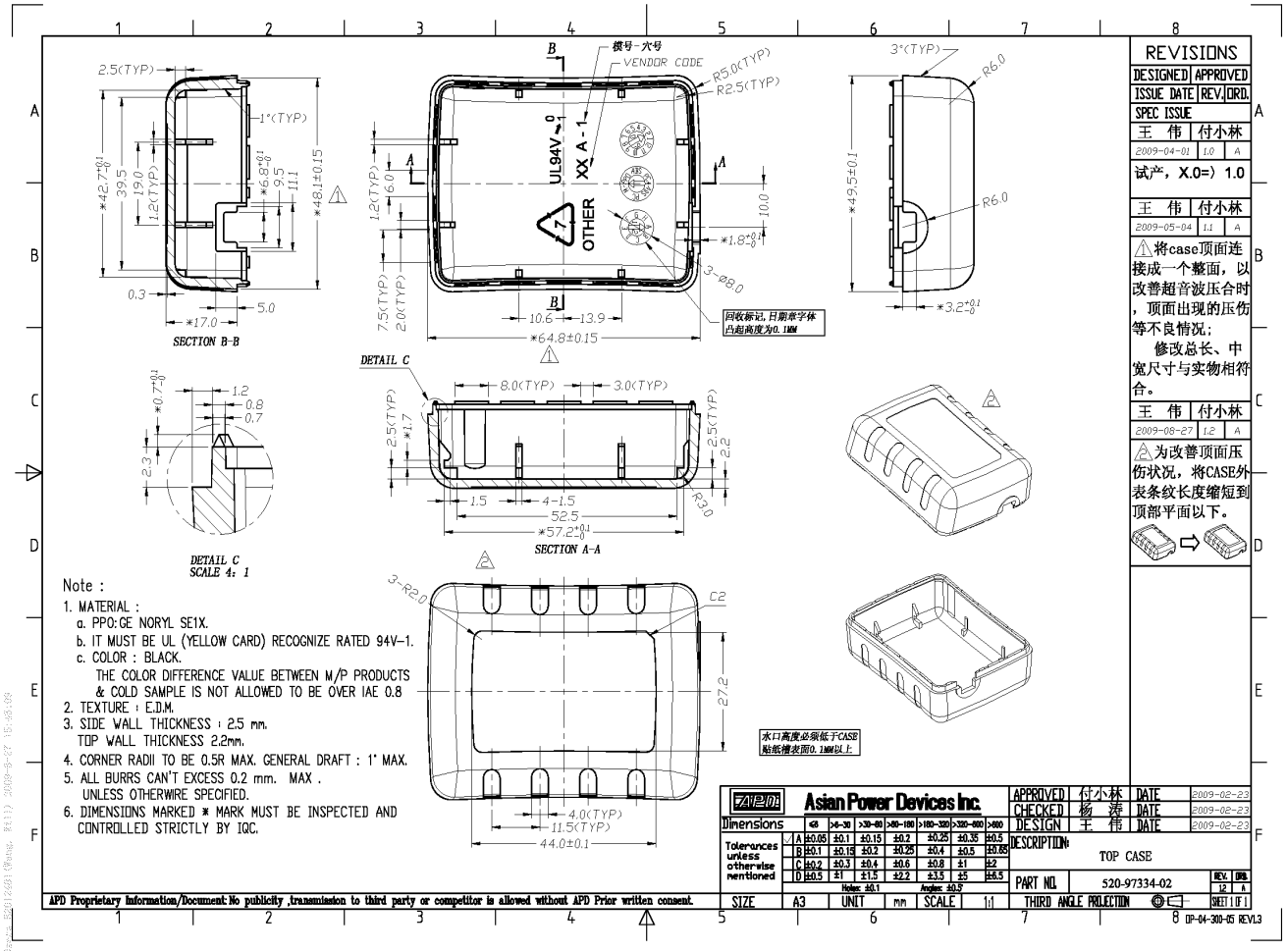
DESCRIPTION: BTM CASE (US PLUG)

PART NO. 520-97335-00 REV. B ORD. 18

THIRD ANGLE PROJECTION SHEET 1 OF 1

SIZE A3 UNIT mm SCALE 1:1

DP-04-300-05 REV1.3



Note :

1. MATERIAL :
   a. PPO:GE NORYL SE1X.
   b. IT MUST BE UL (YELLOW CARD) RECOGNIZE RATED 94V-1.
   c. COLOR : BLACK.
      THE COLOR DIFFERENCE VALUE BETWEEN M/P PRODUCTS & COLD SAMPLE IS NOT ALLOWED TO BE OVER IAE 0.8
2. TEXTURE : E.D.M.
3. SIDE WALL THICKNESS : 2.5 mm.
   TOP WALL THICKNESS 2.2mm.
4. CORNER RADII TO BE 0.5R MAX. GENERAL DRAFT : 1° MAX.
5. ALL BURRS CAN'T EXCESS 0.2 mm. MAX .
   UNLESS OTHERWIRE SPECIFIED.
6. DIMENSIONS MARKED * MARK MUST BE INSPECTED AND CONTROLLED STRICTLY BY IQC.

REVISIONS

DESIGNED	APPROVED
ISSUE DATE	REV.	DRD.
SPEC ISSUE		
王 伟	付小林	
2009-04-01	1.0	A

试产，X.0=）1.0

王 伟	付小林	
2009-05-04	1.1	A

⚠将case顶面连接成一个整面，以改善超音波压合时，顶面出现的压伤等不良情况；
修改总长、中宽尺寸与实物相符合。

王 伟	付小林	
2009-08-27	1.2	A

⚠为改善顶面压伤状况，将CASE外表条纹长度缩短到顶部平面以下。

Asian Power Devices Inc.

APPROVED	付小林	DATE	2009-02-23
CHECKED	杨 清	DATE	2009-02-23
DESIGN	王 伟	DATE	2009-02-23

DESCRIPTION: TOP CASE

PART NO. 520-97334-02 REV. 1.2 DRD. A

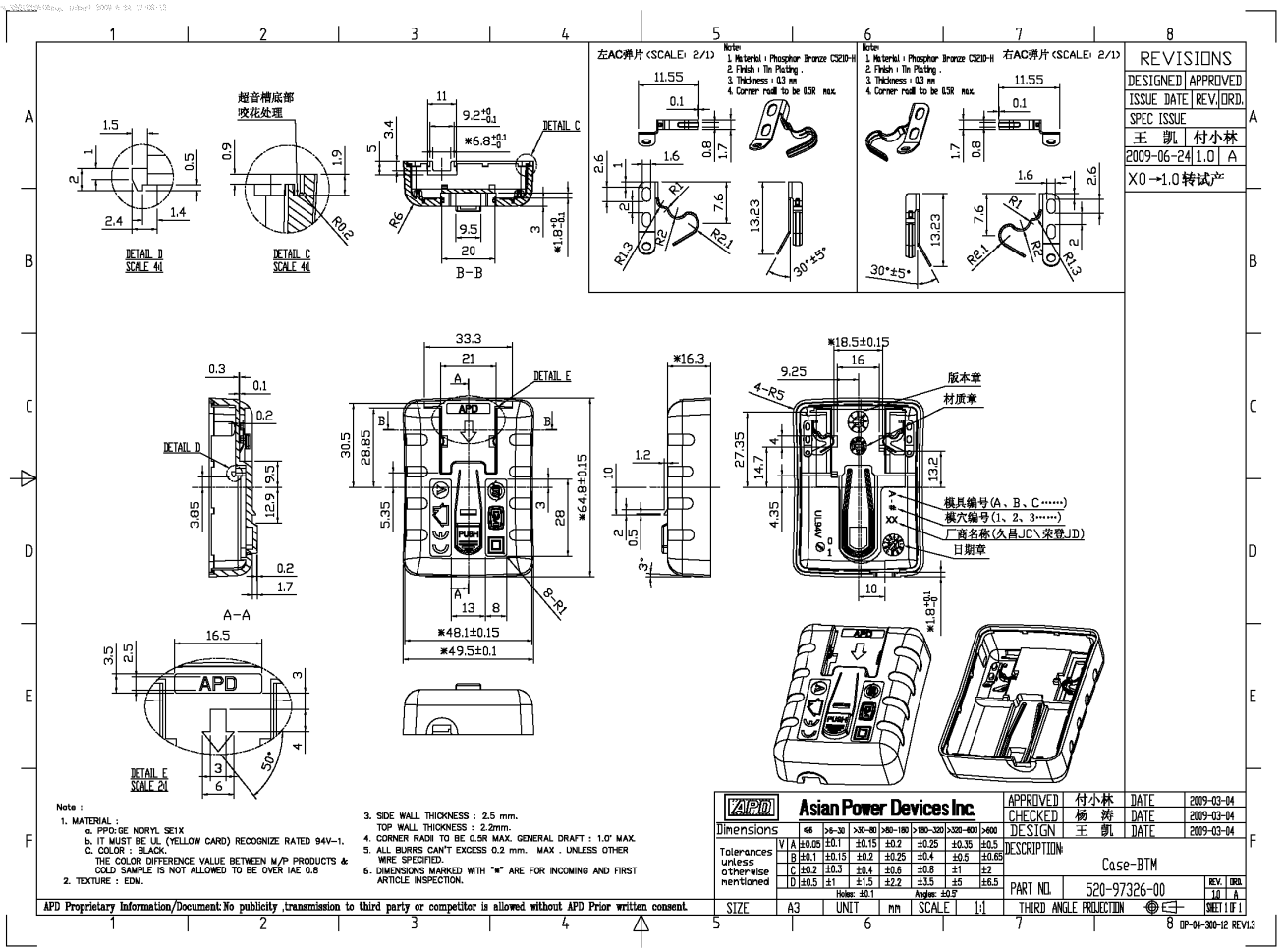
THIRD ANGLE PROJECTION SHEET 1 OF 1

Dimensions	≤6	>6-30	>30-80	>80-180	>180-320	>320-600	>600
Tolerances unless otherwise mentioned A	±0.05	±0.1	±0.15	±0.2	±0.25	±0.35	±0.5
B	±0.1	±0.15	±0.2	±0.25	±0.4	±0.5	±0.65
C	±0.2	±0.3	±0.4	±0.6	±0.8	±1	±2
D	±0.5	±1	±1.5	±2.2	±3.5	±5	±6.5

Holes: ±0.1 Angles: ±0.5°

SIZE A3 UNIT mm SCALE 1:1

DP-04-300-05 REV1.3



Note :
1. MATERIAL :
   a. PPO:GE NORYL SE1X
   b. IT MUST BE UL (YELLOW CARD) RECOGNIZE RATED 94V-1.
   c. COLOR : BLACK.
   THE COLOR DIFFERENCE VALUE BETWEEN M/P PRODUCTS & COLD SAMPLE IS NOT ALLOWED TO BE OVER IAE 0.8
2. TEXTURE : EDM.
3. SIDE WALL THICKNESS : 2.5 mm.
   TOP WALL THICKNESS : 2.2mm.
4. CORNER RADII TO BE 0.5R MAX. GENERAL DRAFT : 1.0° MAX.
5. ALL BURRS CAN'T EXCESS 0.2 mm. MAX . UNLESS OTHER WISE SPECIFIED.
6. DIMENSIONS MARKED WITH "*" ARE FOR INCOMING AND FIRST ARTICLE INSPECTION.

REVISIONS			
DESIGNED	APPROVED		
ISSUE DATE	REV.	ORD.	
SPEC ISSUE			A
王 凯	付小林		
2009-06-24	1.0	A	
XO→1.0转试*			

APD	Asian Power Devices Inc.	APPROVED 付小林	DATE 2009-03-04
		CHECKED 杨 涛	DATE 2009-03-04
		DESIGN 王 凯	DATE 2009-03-04

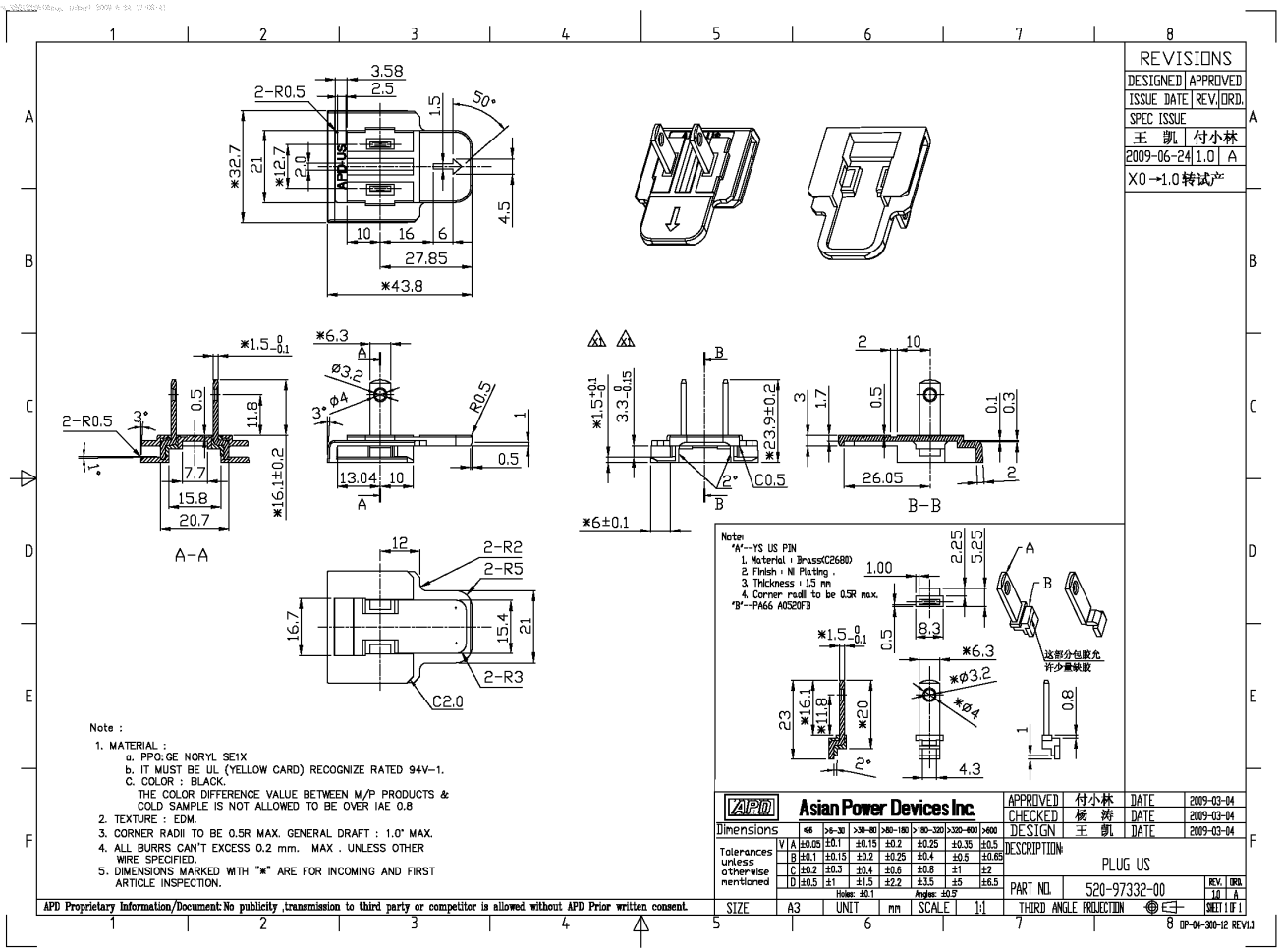
Dimensions		≤6	>6-30	>30-80	>80-180	>180-320	>320-400	>400
Tolerances unless otherwise mentioned	V A	±0.05	±0.1	±0.15	±0.2	±0.25	±0.35	±0.5
	B	±0.1	±0.15	±0.2	±0.25	±0.4	±0.5	±0.65
	C	±0.2	±0.3	±0.4	±0.6	±0.8	±1	±2
	D	±0.5	±1	±1.5	±2.2	±3.5	±5	±6.5
Holes: ±0.1				Angles: ±0.5°				

DESCRIPTION: Case-BTM

PART NO.	520-97326-00	REV.	ORD.
		1.0	A

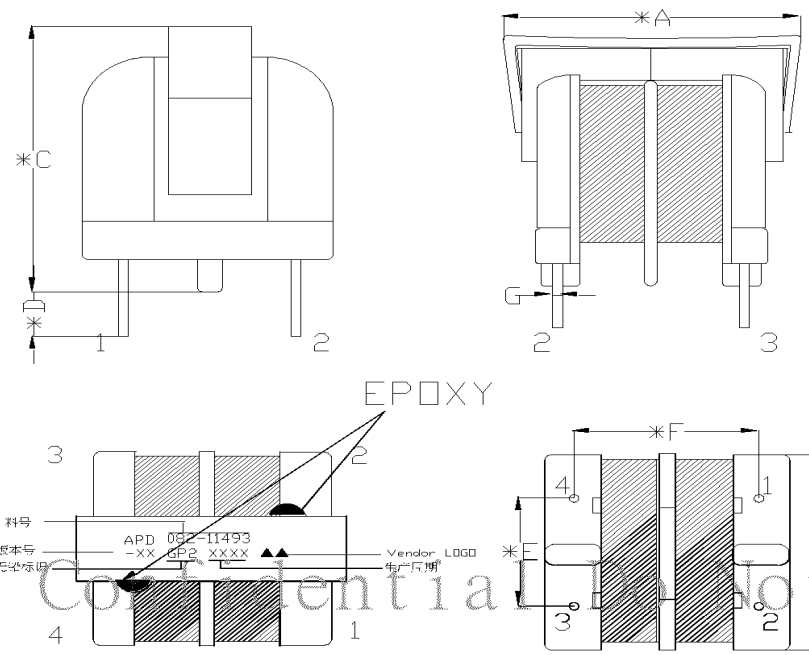
SIZE	A3	UNIT	mm	SCALE	1:1	THIRD ANGLE PROJECTION	SHEET 1 OF 1

DP-04-300-12 REV1.3



SPECIFICATION

1. PHYSICAL DIMENSION(UNIT: m/m): (外观图尺寸) (UNIT : mm)



NOTE:

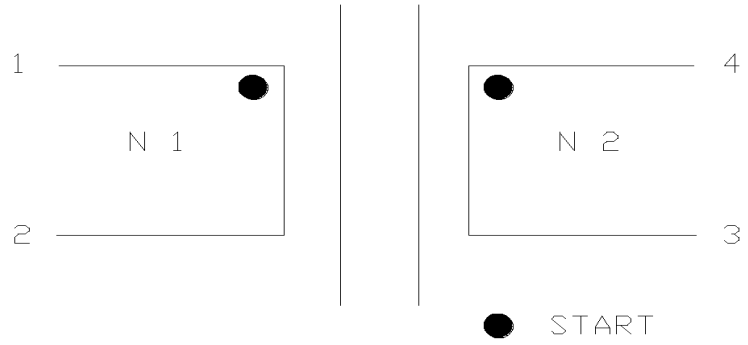
1. 成品需含浸 CORE 铁夹固定装上方.(如外观图所示)
2. 成品外观 CORE 不得松动,铁夹不可翘起.
3. BOBBIN 与 CORE 结合处需点黑胶固定(共两点,如图示)

DIM	A	B	C	D	E	F	G		
	MAX	MAX	MAX	+0.2/ -0.3	+/-0.5	+/-0.5	+/-0.1		
SPEC	16.5	12.0	16.5	3.2	7.0	8.0	0.6		

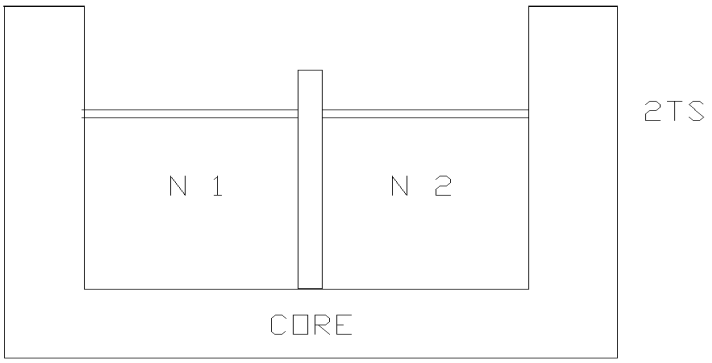
亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-12H12-AAA
	PART/NO	082-11493-00
	REV.	1.0

SPECIFICATION

2. SCHEMATIC: (线路图)



3. WINDING: (剖面图)



APD 亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-12H12-AAA
	PART/NO	082-11493-00
	REV.	1.0

SPECIFICATION

4. WINDING TABLE: (绕线结构)

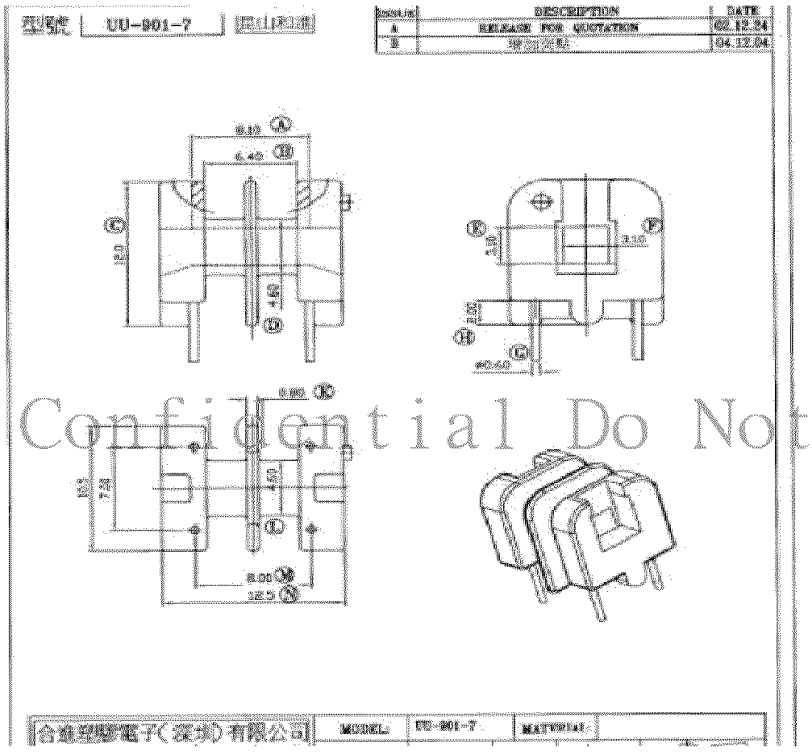
Winding No (组别)	Margin Tape (档墙胶带)	PIN (脚位)	Wire&Wire Copper (线径 X 股数)	Turns (圈数)	Winding Tape (绕线方式)	Tape Layer (胶带层次)	Sleeving Teflon (套管)		NOTE (说明)
							start	finish	
N1	0	1~2	0.23 ϕ *1P	120T	密绕	2T	\	\	
N2	0	4~3	0.23 ϕ *1P	120T	密绕	2T	\	\	

NOTE:

1. 绕线需平整,铜线漆包层不可破损或脱落.
2. N1,N2 各包 UL (Y) TAPE 2TS.
3. 产品须含浸.

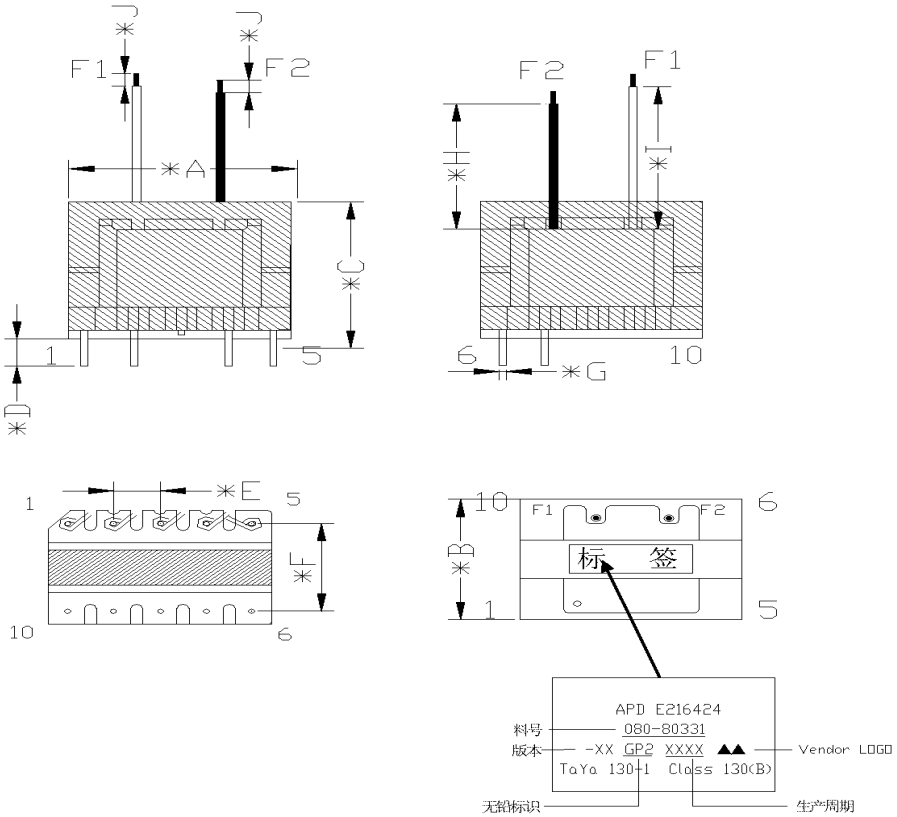
附图

BOBBIN 图:



SPECIFICATION

1.PHYSICAL DIMENSION(UNIT: m/m): (外观图尺寸)



NOTE:

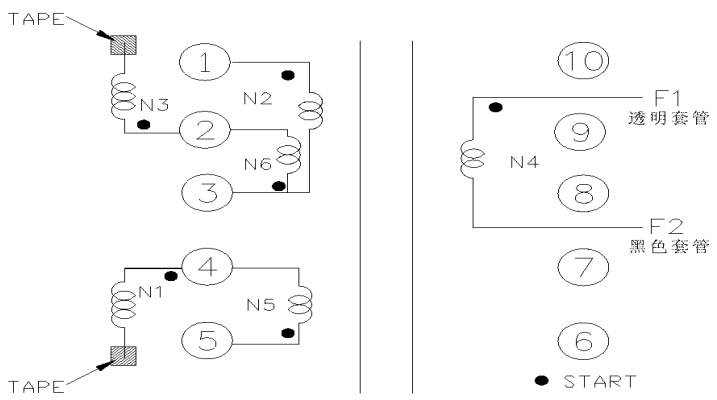
1. PIN8,9,10 CUT OFF，PIN3 CUT OFF2/3.(注：剪 PIN 后锡点不能超过 BOBBIN 支点，也不能剪伤缠线部分)
2. 研磨过的 CORE 装于 BOBBIN 顶部,CORE TAPE UL(Y) 3TS.
3. 最后再包成品外围胶带 16.0mm*1L 2TS(底部平齐 BOBBIN PIN 台,顶部不可低于铁芯最高点)
4. F1,F2 为飞线,需成型(如图一所示),且成型后需以插 PCB 板不浮高为准.
5. 机种 PCB 板厚：1.6 mm，请注意 PIN 长须从产品底部最高点量起.

DIM	A	B	C	D	E	F	G	H	I	J	
	MAX	MAX	MAX	+0.2/-0.3	+/-0.5	+/-0.5	+/-0.1	+2.0/-0	+2/-0	+2.0/-0	
SPEC	20.5	18.0	18.5	3.2	3.9	13.0	0.7	16.0	22.0	5.0	

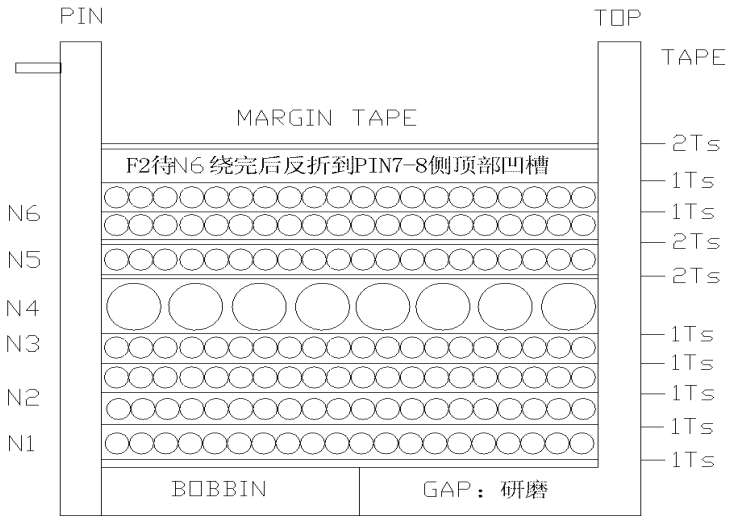
APD 亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-08B05FU-AAAA
	PART/NO	080-80331-X3
	REV.	X.3

SPECIFICATION

2. SCHEMATIC: (线路图)



3.WINDING: (剖面图)



APD 亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-08B05FU-AAAA
	PART/NO	080-80331-X3
	REV.	X.3

SPECIFICATION

4. WINDING TABLE: (绕线结构)

	Winding No(组别)	Margin Tape (档墙胶带)	PIN (脚位)	Wire&Wire Copper (线径 X 股数)	Turns (圈数)	Winding Tape (绕线方式)	Tape Layer (胶带层次)	Sleeving Teflon (套管)		NOTE (说明)
								start	finish	
							1T			
	N1	0	4～	0.16 ϕ *2P	24T	密绕	1T	V	-	
	N2	0	1～3	0.20 ϕ *1P	76T	密绕	1T	V	V	
	N3	0	2～	0.20 ϕ *1P	37T	密绕	1T	V	-	
	N4	0	F1～F2	0.70 ϕ *1P (三层绝缘线)	9T	密绕	2T	透明	黑色	
	N5	0	5～4	0.16 ϕ *2P	22T	顶部密回绕	2T	V	V	
	N6	0	3～2	0.23 ϕ *1P	61T	密绕	1T	V	V	
	F2 待 N6 绕完后反折到靠 PIN7-8 侧顶部凹槽						2T			

NOTE:

1. 绕线前，空 BOBBIN 须包一圈胶带.
2. N1 由 PIN4 起绕, 绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
3. N3 由 PIN2 起绕,绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
4. N2 占两层且层间需层隔，每层 38TS，N6 占两层且层间需层隔，第一层 31TS，第二层 30TS.
5. N4 为三层绝缘线,需先脱皮再镀锡，F1，F2 均为飞线,F1 穿透明套管由 PIN9-10 侧顶部凹槽进线, F2 穿黑色套管由底部 PIN7-8 凹槽出线，F2 待 N6 绕完后折到 PIN7-8 顶部凹槽,再包 2TS TAPE..
6. N5 进线须拉至顶部再密回绕.
7. N5 进线套管须伸至 PIN 脚处(防止 PIN 与 PIN 之间短路).
8. 所有套管均需伸入线包 3mmMIN,所有绕组不可交叉重叠.
9. 所有绕组进出线位置如外观图所示.

APD	亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-08B05FU-AAAA
		PART/NO	080-80331-X3
		REV.	X.3

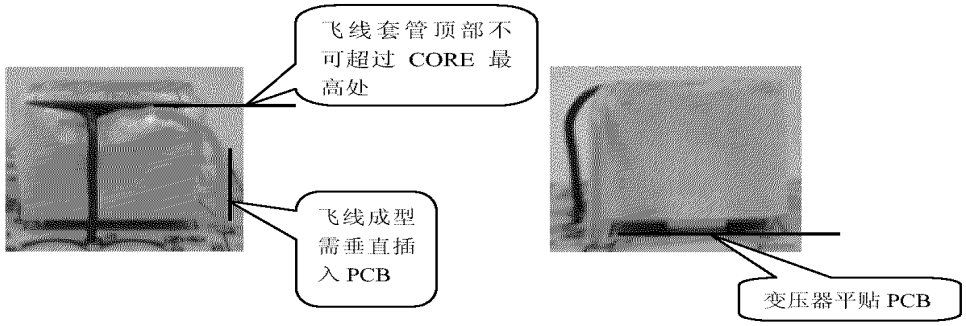
SPECIFICATION

5. ELECTRICAL CHARACTERISTIC:(电器特性)

TEST CONDITION : TEMPERATURE AT 25℃
HUMIDITY AT 65 ±5% RH

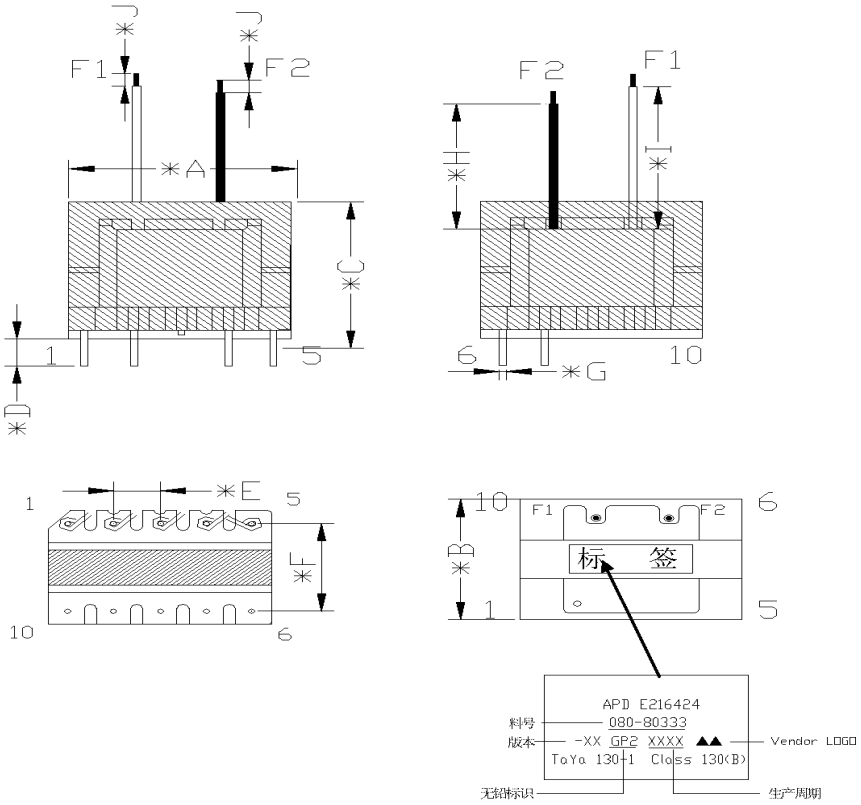
TEST ITEM (测试项目)	TEST CONDITION (测试条件)	RESULT (条件范围值)
INDUCTANCE (电 感) 测试仪器: WAYNE KERR 4230	@ 1KHz, 0.25V (1～2)	2.9mH +/- 5%
LEAKAGE INDUCTANCE (漏 感) 测试仪器: WAYNE KERR 4230	@1KHz, 0.25V (1～2) SHORTED: OTHER PINS,F1,F2	170uH MAX
DC.RESISTANCE (电 阻) 测试仪器: WAYNE KERR 4230	(1～2) (F1～F2) (5～4)	3.0Ω MAX 23mΩ MAX 0.7Ω MAX
Q值 测试仪器: WAYNE KERR 4230	@50KHz, 1V (1～2)	50 MIN
HI-POT TEST (耐压测试) 测试仪器: CH-9052A	@5mA 60SEC(AC)	P<->S 3.0 KV

图一:飞线成型图(图片仅供参考)



SPECIFICATION

1.PHYSICAL DIMENSION(UNIT: m/m): (外观图尺寸)



NOTE:

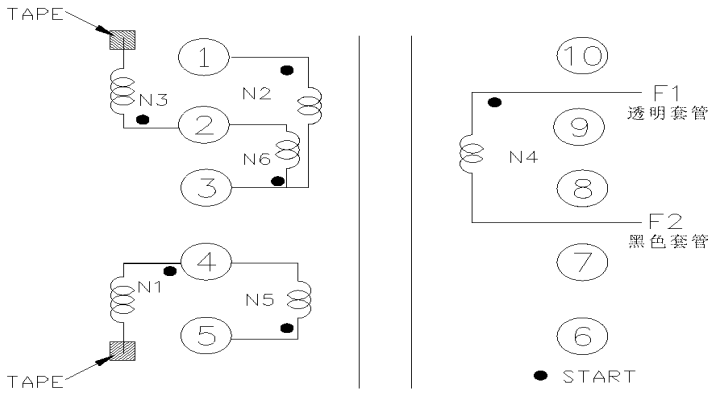
1. PIN8,9,10 CUT OFF，PIN3 CUT OFF2/3.(注：剪 PIN 后锡点不能超过 BOBBIN 支点，也不能剪伤缠线部分)
2. 研磨过的 CORE 装于 BOBBIN 顶部,CORE TAPE UL(Y) 3TS.
3. 最后再包成品外围胶带 16.0mm*1L 2TS(底部平齐 BOBBIN PIN 台,顶部不可低于铁芯最高点)
4. F1,F2 为飞线,需成型(如图一所示),且成型后需以插 PCB 板不浮高为准.
5. 机种 PCB 板厚：1.6 mm，请注意 PIN 长须从产品底部最高点量起.

DIM	A	B	C	D	E	F	G	H	I	J	
	MAX	MAX	MAX	+0.2/-0.3	+/-0.5	+/-0.5	+/-0.1	+2.0/-0	+2/-0	+2.0/-0	
SPEC	20.5	18.0	18.5	3.2	3.9	13.0	0.7	16.0	22.0	5.0	

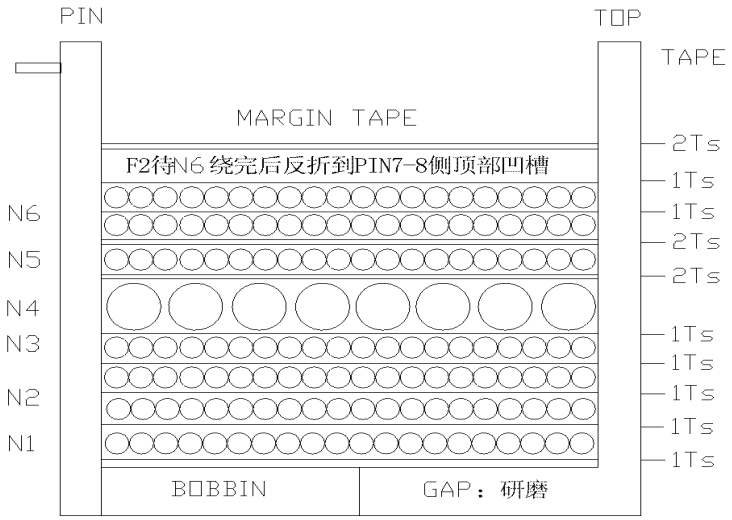
亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-10I05FU-AAAA
	PART/NO	080-80333-X3
	REV.	X.3

SPECIFICATION

2. SCHEMATIC: (线路图)



3.WINDING: (剖面图)



APD	亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-10I05FU-AAAA
		PART/NO	080-80333-X3
		REV.	X.3

SPECIFICATION

4. WINDING TABLE: (绕线结构)

	Winding No(组别)	Margin Tape (档墙胶带)	PIN (脚位)	Wire&Wire Copper (线径 X 股数)	Turns (圈数)	Winding Tape (绕线方式)	Tape Layer (胶带层次)	Sleeving Teflon (套管)		NOTE (说明)
								start	finish	
							1T			
	N1	0	4～	0.16 ∮ *2P	24T	密绕	1T	V	-	
	N2	0	1～3	0.20 ∮ *1P	76T	密绕	1T	V	V	
	N3	0	2～	0.20 ∮ *1P	37T	密绕	1T	V	-	
	N4	0	F1～F2	0.70 ∮ *1P (三层绝缘线)	9T	密绕	2T	透明	黑色	
	N5	0	5～4	0.16 ∮ *2P	22T	顶部密回绕	2T	V	V	
	N6	0	3～2	0.23 ∮ *1P	61T	密绕	1T	V	V	
	F2 待 N6 绕完后反折到 PIN7-8 侧顶部凹槽						2T			

NOTE:

1. 绕线前，空 BOBBIN 须包一圈胶带.
2. N1 由 PIN4 起绕，绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
3. N3 由 PIN2 起绕,绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
4. N2 占两层且层间需层隔，每层 38TS，N6 占两层且层间需层隔，第一层 31TS，第二层 30TS.
5. N4 为三层绝缘线,需先脱皮再镀锡，F1，F2 均为飞线,F1 穿透明套管由 PIN9-10 侧顶部凹槽进线，F2 穿黑色套管由底部 PIN7-8 凹槽出线，F2 待 N6 绕完后折到 PIN7-8 顶部凹槽,再包 2TS TAPE.
6. N5 进线须拉至顶部再密回绕.
7. N5 进线套管须伸至 PIN 脚处(防止 PIN 与 PIN 之间短路).
8. 所有套管均需伸入线包 3mmMIN,所有绕组不可交叉重叠.
9. 所有绕组进出线位置如外观图所示.

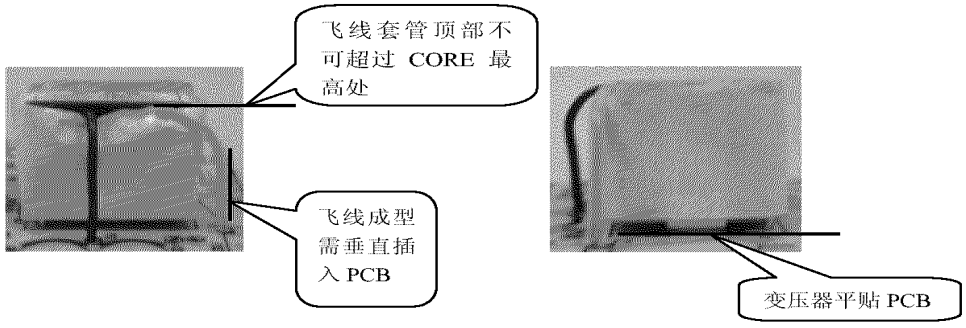
SPECIFICATION

5. ELECTRICAL CHARACTERISTIC:(电器特性)

TEST CONDITION : TEMPERATURE AT 25℃
HUMIDITY AT 65 ±5% RH

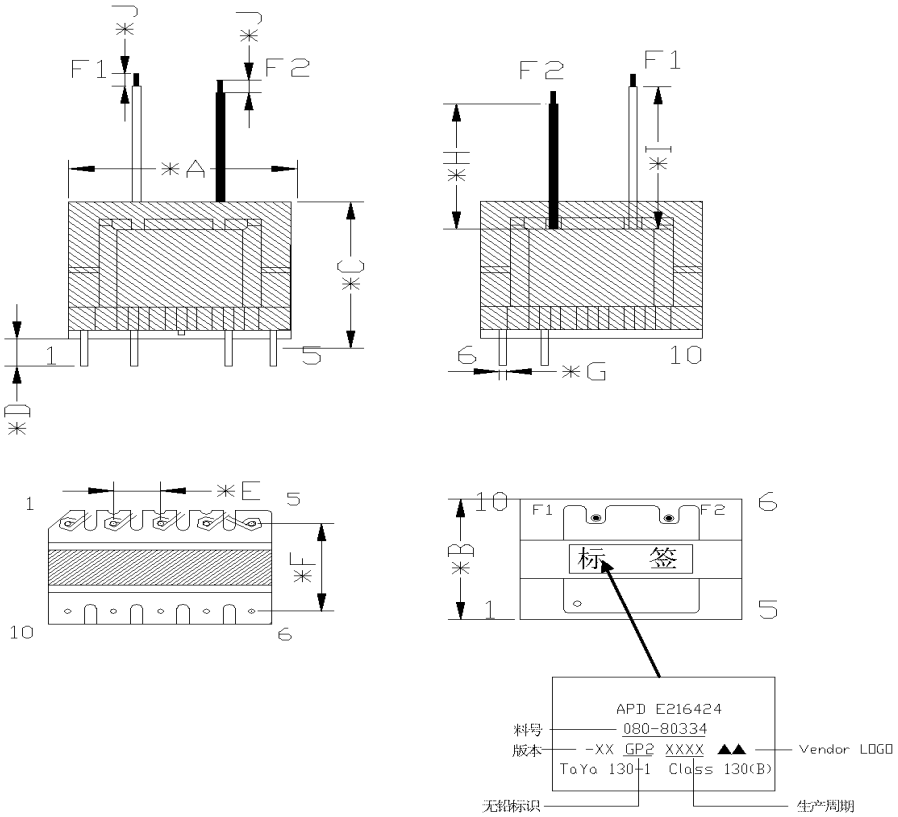
TEST ITEM (测试项目)	TEST CONDITION (测试条件)	RESULT (条件范围值)
INDUCTANCE (电 感) 测试仪器: WAYNE KERR 4230	@ 1KHz, 0.25V (1～2)	2.2mH +/- 5%
LEAKAGE INDUCTANCE (漏 感) 测试仪器: WAYNE KERR 4230	@1KHz, 0.25V (1～2) SHORTED: OTHER PINS,F1,F2	200uH MAX
DC.RESISTANCE (电 阻) 测试仪器: WAYNE KERR 4230	(1～2) (F1～F2) (5～4)	3.0Ω MAX 23mΩ MAX 0.7Ω MAX
Q值 测试仪器: WAYNE KERR 4230	@50KHz, 1V (1～2)	50 MIN
HI-POT TEST (耐压测试) 测试仪器: CH-9052A	@5mA 60SEC(AC)	P<->S 3.0 KV

图一:飞线成型图(图片仅供参考)



SPECIFICATION

1.PHYSICAL DIMENSION(UNIT: m/m): (外观图尺寸)



NOTE:

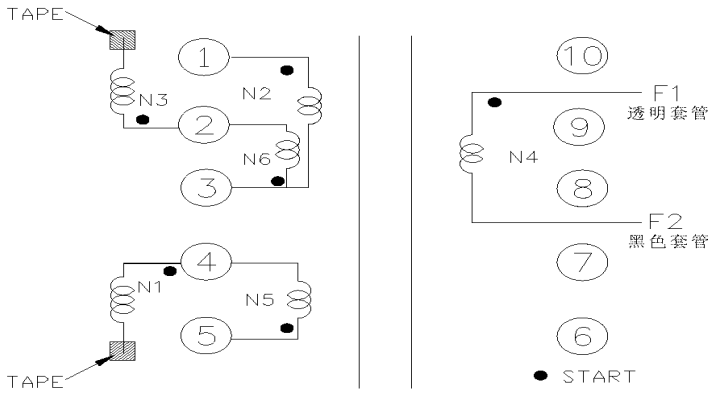
1. PIN8,9,10 CUT OFF，PIN3 CUT OFF2/3.(注：剪 PIN 后锡点不能超过 BOBBIN 支点，也不能剪伤缠线部分)
2. 研磨过的 CORE 装于 BOBBIN 顶部,CORE TAPE UL(Y) 3TS.
3. 最后再包成品外围胶带 16.0mm*1L 2TS(底部平齐 BOBBIN PIN 台,顶部不可低于铁芯最高点)
4. F1,F2 为飞线,需成型(如图一所示),且成型后需以插 PCB 板不浮高为准.
5. 机种 PCB 板厚：1.6 mm，请注意 PIN 长须从产品底部最高点量起.

DIM	A	B	C	D	E	F	G	H	I	J	
	MAX	MAX	MAX	+0.2/-0.3	+/-0.5	+/-0.5	+/-0.1	+2.0/-0	+2/-0	+2.0/-0	
SPEC	20.5	18.0	18.5	3.2	3.9	13.0	0.7	16.0	22.0	5.0	

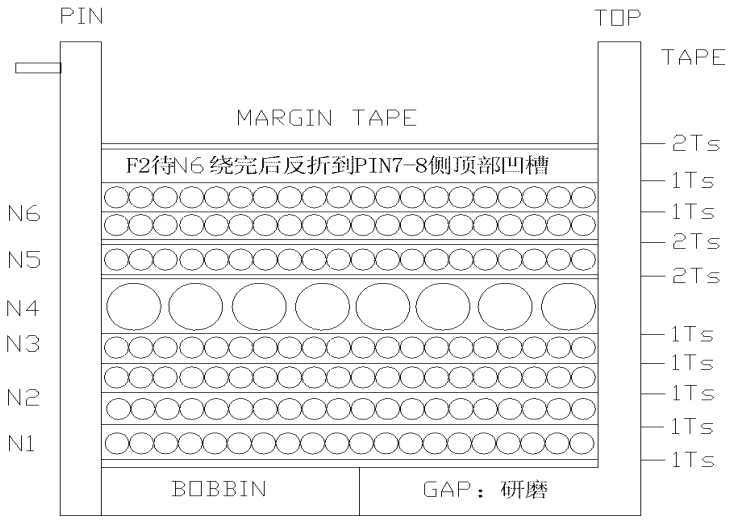
亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-13A05FU-AAAA
	PART/NO	080-80334-X3
	REV.	X.3

SPECIFICATION

2. SCHEMATIC: (线路图)



3.WINDING: (剖面图)



APD	亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-13A05FU-AAAA
		PART/NO	080-80334-X3
		REV.	X.3

SPECIFICATION

4. WINDING TABLE: (绕线结构)

Winding No(组别)	Margin Tape (档墙胶带)	PIN (脚位)	Wire&Wire Copper (线径 X 股数)	Turns (圈数)	Winding Tape (绕线方式)	Tape Layer (胶带层次)	SleevingTeflon (套管)		NOTE (说明)
							start	finish	
						1T			
N1	0	4～	0.16 ∮ *2P	24T	密绕	1T	V	-	
N2	0	1～3	0.20 ∮ *1P	76T	密绕	1T	V	V	
N3	0	2～	0.20 ∮ *1P	37T	密绕	1T	V	-	
N4	0	F1～F2	0.70 ∮ *1P (三层绝缘线)	9T	密绕	2T	透明	黑色	
N5	0	5～4	0.16 ∮ *2P	22T	顶部密回绕	2T	V	V	
N6	0	3～2	0.23 ∮ *1P	61T	密绕	1T	V	V	
F2 待 N6 绕完后反折到靠 PIN7-8 侧顶部凹槽						2T			

NOTE:

1. 绕线前，空 BOBBIN 须包一圈胶带.
2. N1 由 PIN4 起绕，绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
3. N3 由 PIN2 起绕,绕完后,线头须剪齐且用胶带完全覆盖绝缘并平贴线包.(出线线头需绝缘好,以免内部短路).
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5. N4 为三层绝缘线,需先脱皮再镀锡，F1，F2 均为飞线,F1 穿透明套管由 PIN9-10 侧顶部凹槽进线，F2 穿黑色套管由底部 PIN7-8 凹槽出线，F2 待 N6 绕完后折到 PIN7-8 顶部凹槽,再包 2TS TAPE.
6. N5 进线须拉至顶部再密回绕.
7. N5 进线套管须伸至 PIN 脚处(防止 PIN 与 PIN 之间短路).
8. 所有套管均需伸入线包 3mmMIN,所有绕组不可交叉重叠.
9. 所有绕组进出线位置如外观图所示.

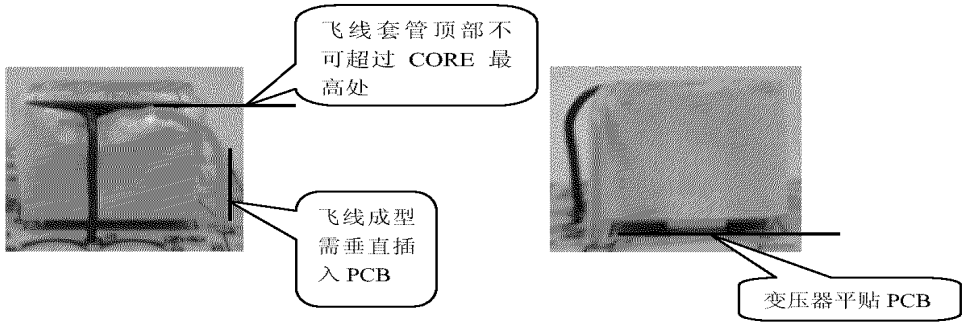
SPECIFICATION

5. ELECTRICAL CHARACTERISTIC:(电器特性)

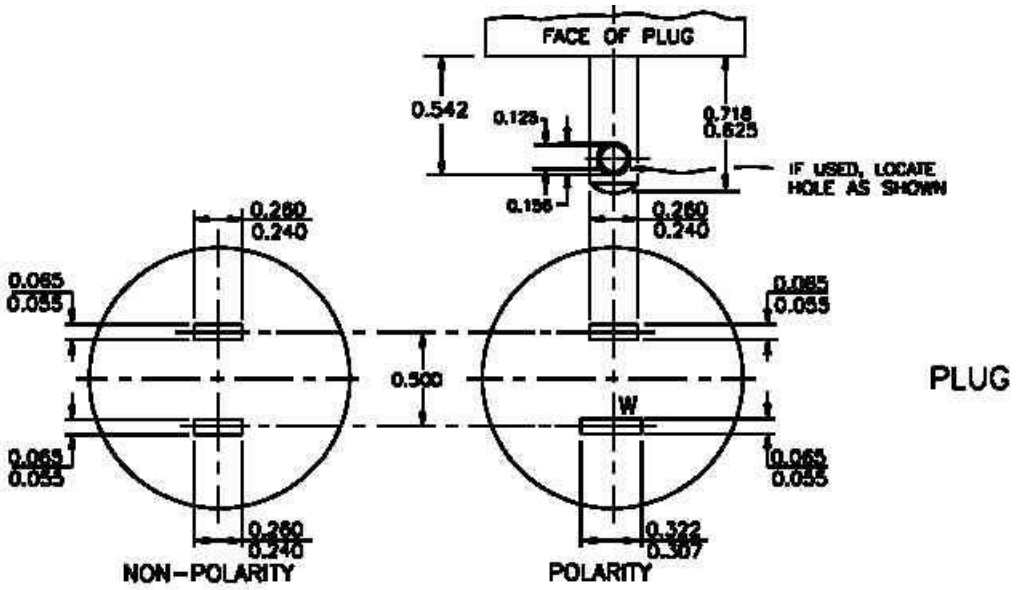
TEST CONDITION : TEMPERATURE AT 25℃
HUMIDITY AT 65 ±5% RH

TEST ITEM (测试项目)	TEST CONDITION (测试条件)	RESULT (条件范围值)
INDUCTANCE (电 感) 测试仪器: WAYNE KERR 4230	@ 1KHz, 0.25V (1～2)	1.850mH +/- 5%
LEAKAGE INDUCTANCE (漏 感) 测试仪器: WAYNE KERR 4230	@1KHz, 0.25V (1～2) SHORTED: OTHER PINS,F1,F2	230uH MAX
DC.RESISTANCE (电 阻) 测试仪器: WAYNE KERR 4230	(1～2) (F1～F2) (5～4)	3.0Ω MAX 23mΩ MAX 0.7Ω MAX
Q值 测试仪器: WAYNE KERR 4230	@50KHz, 1V (1～2)	50 MIN
HI-POT TEST (耐压测试) 测试仪器: CH-9052A	@5mA 60SEC(AC)	P<->S 3.0 KV

图一:飞线成型图(图片仅供参考)

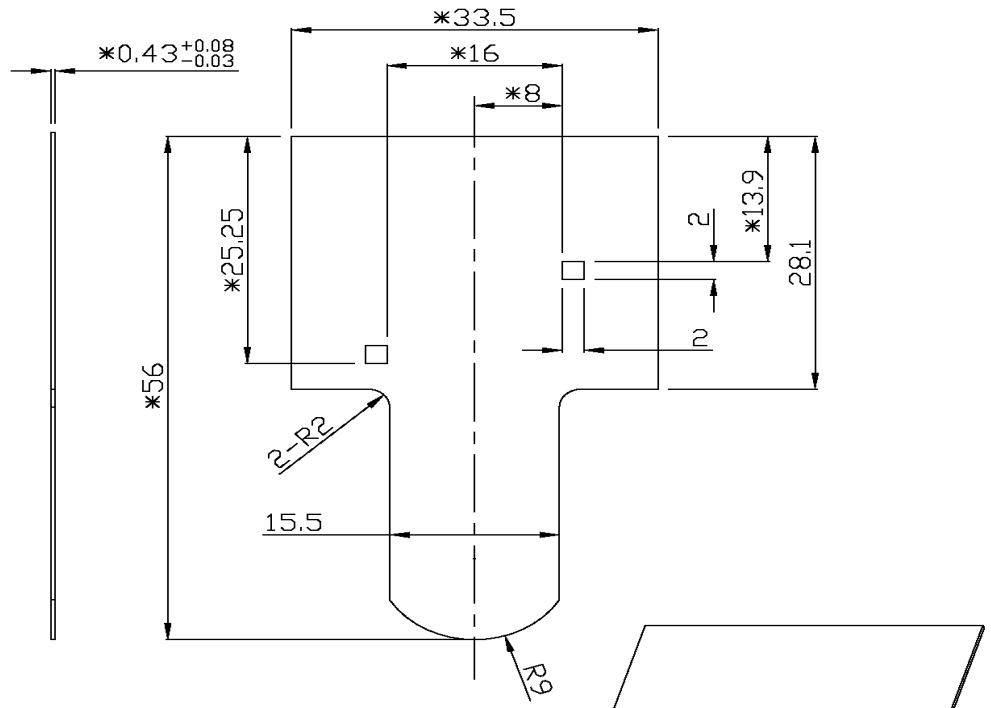


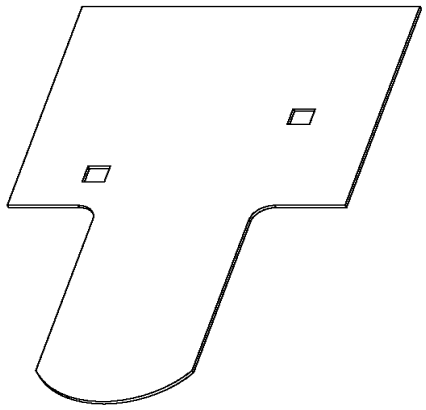
APD 亚源科技股份有限公司 ASIAN POWER DEVICES INC	MODEL	WA-13A05FU-AAAA
	PART/NO	080-80334-X3
	REV.	X.3


FACE OF PLUG
0.542
0.125
0.718
0.625
IF USED, LOCATE HOLE AS SHOWN
0.156
0.260
0.240
0.085
0.055
0.500
W
0.322
0.307
NON-POLARITY
POLARITY

PLUG

REV.	ORD.	REVISION NOTE.	DATE	DESIGNED	APPROVED
1.0	A	X0→1.0转试产	2009-06-24	王 凯	付小林





Note:
1. Material : PP-BK17(OR EQ)
2. Thickness: 0.43 +0.08 −0.03 mm
3. Color : BLACK
4. Dimensions marked with "*" are for incoming and first article inspection.

Asian Power Devices Inc.

Dimensions		≤6	>6–30	>30–80	>80–180	>180–320	>320–600	>600
Tolerances unless otherwise mentioned	A	±0.05	±0.1	±0.15	±0.2	±0.25	±0.35	±0.5
	B	±0.1	±0.15	±0.2	±0.25	±0.4	±0.5	±0.65
√	C	±0.2	±0.3	±0.4	±0.6	±0.8	±1	±2
	D	±0.5	±1	±1.5	±2.2	±3.5	±5	±6.5
Holes: ±0.1					Angles: ±0.5°			

SIZE	A4	UNIT	mm	SCALE	1:1

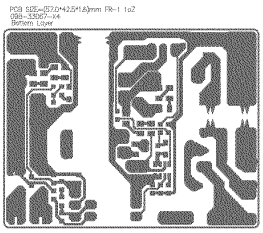
APPROVED	付小林	DATE	2009.03.05
CHECKED	杨 涛	DATE	2009.03.05
DESIGN	王 凯	DATE	2009.03.04

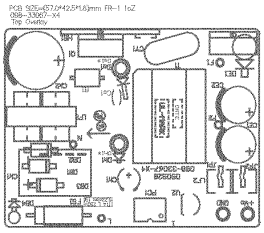
DESCRIPTION: WA-12112RU-AAAA MYLAR

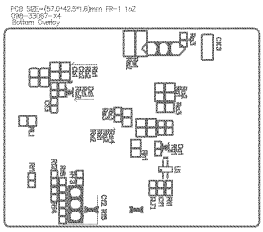
PART NO. 114-40926-00 REV. 1.0 ORD. A

THIRD ANGLE PROJECTION SHEET 1 OF 1

DP-04-300-12 REV1.3







APD	ASIAN POWER DEVICES INC.	
	Size: A4	Description: PCBLayoutDrawing
	Part No: 098-33067-X4	Page 1 of 1
Rev : X.4	Code : A	Apv. By : Rory
		Chk. By : XJM
Date : 2009-09-28		Drew By : Huaikun

Table 2.1.1.5	Energy Hazard Measurements	Pass

Accessible Parts	Test Points From / To	Maximum VA	Maximum V (Volts)	Maximum A (Amps)
Output terminal	+/-	16.6	4.37	3.6

Note(s):

Table 2.1.1.7	Capacitance Discharge Test	N/A

Measurement Locations	Fuse In/Out	Switch Position	V_o (V pk)	37% V_o (V pk)	Time at 37% Vo (S)	V_{tc} (V pk)

Note(s):

Table 2.2	SELV Reliability Test	Pass

Hazardous Voltage (Circuit) Measurement							
Clearance and creepage distance at/of:			Up (V)	U r.m.s. (V)	Limiting component		
T1 Pin F1-F2			29.6	--			
No. Accessible Part From - To	Component No. (Voltage Limiting)	Fault	Test Voltage	Test time (Duration)	Fuse No.	Fuse Current (A)	Result Specify Maximum Vpk or V dc

Note(s):

Table 2.5	Limited Power Source Measurements	Pass

Output	Measured		Single Fault	Maximum		
Tested	From	To	Condition	U_{oc}	I_{sc}	VA 5 s
Output terminal	+	-	Normal	5.1	3.8	16.6
Output terminal	+	-	PC1 pin 1-2 short	0	0	0*
Output terminal	+	-	PC1 pin 3-4 short	0	0	0*
Output terminal	+	-	PC1 pin 1 open	0	0	0*
Output terminal	+	-	PC1 pin 3 open	0	0	0*
Output terminal	+	-	Rs1 short	0	0	0**

Note(s): *: Unit shut down **: Fuse open immediately

Table 2.6.3.4	Earthing Test	N/A

Accessible Conductive Part	Current (Amps)	Voltage Drop (Volts)	Resistance (_)
Note(s):			

Table 2.10.2	Working Voltage Measurement Test	Pass

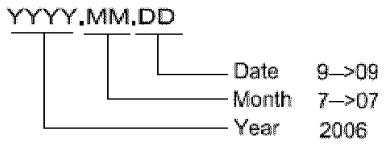
Clearance and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)
T1 pin 1- pin F1	536	273
T1 pin 1- pin F2	**544**	**281 ***
T1 pin 2- pin F1	392	227
T1 pin 2- pin F2	368	226
T1 pin 4- pin F1	360	215
T1 pin 4- pin F2	348	215
T1 pin 5- pin F1	388	215
T1 pin 5- pin F2	412	217
PC1 pin 1-pin 3	356	219
PC1 pin 1-pin 4	356	218
PC2 pin 2-pin 3	356	219
PC2 pin 2-pin 4	356	217
CY1 Pri. – Sec.	352	215
Note(s):∗ :The Maxmum Upeak and U r.m.s Voltage		

Table 5.1.6	Touch Current Test	Pass

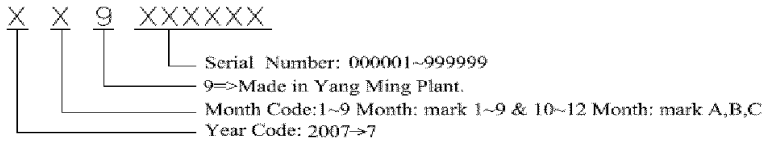
Terminal A (Switch “s”) of Measuring Instrument Connected to:	Switch “e” Position	Test voltage	Touch Current (mA r.m.s.) Polarity P1/Primary Switch Condition			
			Normal/On	Normal/Off	Reverse/On	Reverse/Off
Output terminal	--	264Vac	0.23	--	0.23	--
Enclosure cover with metal foil	--	264Vac	0.01	--	0.01	--
Note(s): CY1=3300pF.						

60065 Date code 编码方式

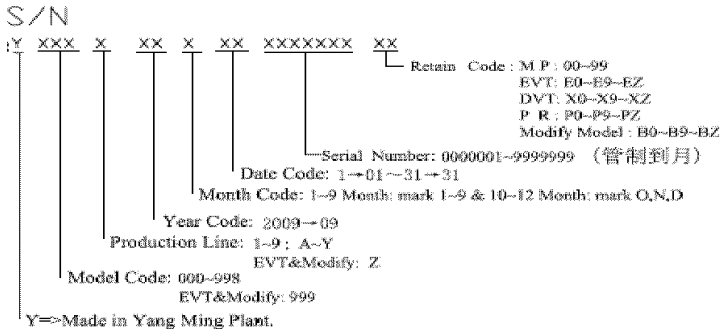
1.



2.



3.



Asian Power Devices Inc

Important safety instructions

Model : WA-08B05FU, WA-08B05R; WA-10I05FU, WA-10I05R; WA-13A05FU, WA-13A05R
Input: 100-240Vac, 0.3A Max, 50-60Hz;
Output: 5V, 1.5A(for WA-08B05FU, WA-08B05R)
5V, 2A (for WA-10I05FU, WA-10I05R)
5V, 2.5A (for WA-13A05FU, WA-13A05R)

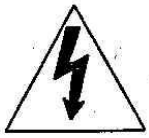
1. Read this instructions
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings.Install in accordance with the manufacturer' sinstructions.
8. Do not install near any heat sources such as radiators,heat registers, stoves, or other apparatus (including amplifiers)that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a car ti sused, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug isdamaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
15. WARNING To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
16. The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
17. The equipment shall be used under ventilated environment.
18. Safety symbols

Revised: 18.08.2005

Asian Power Devices Inc

 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of unisulated "dangerous voltage" withe the product's enclosure that may de of sufficient magnitude to constitute a risk of electric shock to people.	**CAUTION** **RISK OF ELECTRIC SHOCK DO NOT OPEN** WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVIC-ABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	 The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Revised: 18.08.2005

 SA 1965	DANGEROUS VOLTAGE: The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.
 SA 1966	INSTRUCTIONS: The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.


CAUTION

Test Voltage: 264 [Vac, 60 Hz] ~~[Vdc]~~
[X] METHOD - Measurement of Isc and S made 5 s after application of the load if protection is by an electronic circuit or a positive temperature coefficient device.

Output Tested	Measured		Single Fault Condition	Maximum			Comments
	From	To		U_{oc}	I_{sc} 5s	VA 5s	
Output terminal	+	-	Normal	5.74Vdc	3.92A	21.2(5.40V X 3.92A)	Normal operation
Output terminal	+	-	PC1 pin 1-2 short	0	0	0	Unit shut down immediately
Output terminal	+	-	PC1 pin 3-4 short	0	0	0	Unit shut down immediately
Output terminal	+	-	PC1 pin 1 open	0	0	0	Unit shut down immediately
Output terminal	+	-	PC1 pin 3 open	0	0	0	Unit shut down immediately
Output terminal	+	-	Cf2 short	4.76	5.21	15.9(3.06V X 5.21A)	Normal operation
Output terminal	+	-	Rf6short	5.70	4.15	22.0(5.30V X 4.15A)	Normal operation
Output terminal	+	-	Rf2 short	0	0	0	Unit shut down immediately

Test Record No. 1

- The manufacturer submitted representative production sample of AC Adapter, Models
(1) WA-08B05FU, WA-08B05R
(2) WA-10I05FU, WA-10I05R
(3) WA-13A05FU, WA-13A05R

- TPTDP: Unless otherwise noted in the below list of tests, all tests were conducted by Cerpass Technology (Dongguan) Co., Ltd. and located at ChangAn, Dongguan, GuangDong, China, under the TPTDP program.

- Unless otherwise indicated, all tests were conducted on Models WA-13A05R and WA-13A05FU.

- Tests performed on Models WA-13A05R and WA-13A05FU were considered to be representative of Models WA-08B05FU, WA-08B05R, WA10I05FU, and WA-10I05R.

- Overload in Transformer Abnormal Operation was considered covered by Power Supply Output Short-Circuit/Overload Test, based upon engineering judgement after analyzing the circuit.

- The following test of UL60065 and CAN/CSA-C22.2 No. 60065:03 were also conducted:
Test Conditions:
Fault Conditions: Clearance and Creepage, Insulating Materials and Electronic Components (4.3.2)
Fault Conditions: Output Terminal Overload (4.3.9)
Touch Current After Fault Conditions (9.1.1.1)
Marking Durability And Legibility (5)
Heating Under Normal Operating Conditions (7)
Touch Current (9.1.1)
Enclosure Resistance To External Forces (9.1.7)
Surge Test (10.1)
Impact (12.1.3)
Dielectric Strength After Impact (10.3, Table 5)
Blade Torque Test - Direct Plug-In Unit (15.4.3b)
Blade Secureness Pull Test - Direct Plug-In Unit (15.4.3c)

- The following following test of UL60065 and CAN/CSA-C22.2 No. 60065:03 were considered covered by CAN/CSA-C22.2 No. 60950-1 and the second edition of UL 60950-1. Dated March 27, 2007:
Input Test for Apparatus Not Employing Signal Inputs And Not Containing An Audio Amplifier.
Dielectric Strength After Fault Conditions
Humidity Treatment
Drop Test
Dielectric Strength After Drop Test
Stress Relief Test
Determination of Operating Voltage

- Softening Temperature of Thermoplastics of UL60065 and CAN/CSA-C22.2 No. 60065:03 was considered covered by E168210-A91 and not conducted.

- The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment - Safety - Part 1: General Requirements. It is the second edition of CAN/CSA-C22.2 No. 60950-1 and the second edition of UL 60950-1. Dated March 27, 2007, and UL 60065, Seventh Edition, Dated June 30, 2003, contains revisions through and including December 11, 2007, and CAN/CSA-C22.2 No.60065:03 dated April, 2003, Amendment 1 dated April 2006, and, therefore, such products are judged eligible to bear UL's Mark as

described on the Conclusion Page of this Report. Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Power Supply Reference Page	
Maximum Output Voltage, Current, and Volt-Ampere Measurement (1.2.2.1)	
Input: Single-Phase (1.6.2)	
Energy Hazard Measurements (2.1.1.5, 2.1.2, 1.2.8.10)	
Limited Current Circuit Measurement (2.4.1, 2.4.2)	
Limited Power Source Measurements (2.5)	
Humidity (2.9.1, 2.9.2, 5.2.2)	
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	
Determination of Working Voltage; Hazardous Voltage (Circuit) Measurement (2.10.2, Part 22 6.1)	
Transformer and Wire /Insulation Electric Strength (2.10.5.13)	
Steady Force (4.2.1 - 4.2.4)	
Drop (4.2.6, 4.2.1)	
Stress Relief (4.2.7, 4.2.1)	
Direct Plug-In Equipment-Moment (4.3.6)	
Direct Plug-In Blade Securement (4.3.6)	
Direct Plug-In Security of Input Contacts (4.3.6)	
Direct Plug-In Resistance to Crushing (4.3.6)	
Direct Plug-In Rod Pressure (4.3.6)	
Direct Plug-In Input Blade Endurance (4.3.6)	
Heating (4.5.1, 1.4.12, 1.4.13)	
Ball Pressure (4.5.5, 4.5)	
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)	
Electric Strength (5.2.2)	
Component Failure (5.3.1, 5.3.4, 5.3.7)	
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	
Power Supply Output Short-Circuit/Overload (5.3.7)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	Construction Review Datasheet (60950-1)
Datasheet	2-02	Test Datasheet (60950-1)
Attachment	2-03	Construction Review Datasheet (60065)
Datasheet	2-04	Test Datasheet (60065)

Test Record No. 2

-- Manufacturer submitted representative production, AC Adapter, Models WA-10A06FU, WA-10A06R, which with NEW output rating, the new models are identical to models: WA-10I05FU, WA-10I05R, except for output rating (depend on secondary voltage sampling resistors), for examination and test.

-- Model WA-10A06FU is similar to Model WA-10A06R except for fixed or replaceable blade plug and model designation.

-- The model WA-10A06R was used for test purposes and considered representative of model WA-10A06FU.

-- Only limited tests were performed on Model WA-10A06R because of similarity in construction to previously evaluation.

-- All tests were conducted in Cerpass Technology (Dongguan) Co.,Ltd under TPTDP program.

-- Test results relate only to the items tested.

-- The test methods and results of the following tests also have been reviewed and found in accordance with UL 60065, Audio, video and similar electronic apparatus - Safety requirements, 7th edition, 2007-12-11 that were considered representative of the same tests required by Canadian Standard, CAN/CSA-C22.2 No. 60065-03, Audio, Video and similar electronic apparatus - Safety requirements, 1st edition, 2006-04 + A1: 2006.

-- The tests in according with UL 60065 and CAN/CSA-C22.2 No. 60065-03 including:
- TEST CONDITIONS
- INPUT TEST FOR APPARATUS NOT EMPLOYING SIGNAL INPUTS AND NOT CONTAINING AN AUDIO AMPLIFIER (4.2)_ See datasheet of UL60950-1 (Supplement ID: 2-DataSheet-01) for details.
- FAULT CONDITIONS - GENERAL (4.3)
- FAULT CONDITIONS - CLEARANCE AND CREEPAGE, INSULATING MATERIALS AND ELECTRONIC COMPONENTS (4.3.1, 4.3.2, 4.3.4)
- FAULT CONDITIONS - OUTPUT TERMINAL OVERLOAD (4.3.9)
- DIELECTRIC STRENGTH AFTER FAULT CONDITIONS (11)
- TOUCH CURRENT AFTER FAULT CONDITIONS (11.1)
- HEATING UNDER NORMAL OPERATING CONDITIONS (7)
- DETERMINATION OF OPERATING VOLTAGE (13.2)_ See datasheet of UL60950-1 (Supplement ID: 2-DataSheet-01) for details.

-- Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

-- The following tests conducted in accordance with UL60950-1, 2nd Edition, Dated March 27, 2007, Information Technology Equipment - Safety - Part 1: General Requirements were representatives of the same tests required by Canadian National Standard, CAN/CSA-C22.2 No. 60950-1-07, 2nd Edition, Date March 01, 2007, Information Technology Equipment - Safety - Part 1: General Requirements.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Power Supply Reference Page	
Maximum Output Voltage, Current, and Volt-Ampere Measurement (1.2.2.1)	
Input: Single-Phase (1.6.2)	
Limited Power Source Measurements (2.5)	
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	
Determination of Working Voltage; Hazardous Voltage (Circuit) Measurement (2.10.2, Part 22 6.1)	
Heating (4.5.1, 1.4.12, 1.4.13)	
Electric Strength (5.2.2)	
Component Failure (5.3.1, 5.3.4, 5.3.7)	
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	
Power Supply Output Short-Circuit/Overload (5.3.7)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Datasheet	2-05	2-datasheet-01 for UL60950
Datasheet	2-06	2-datasheet-02 for UL60065
Attachment	2-07	CRD for 60950
Attachment	2-08	CRD for 60065

Test Record No. 3

-- Manufacturer submitted representative production, AC Adapter, Models WA-13A05FU (alternate the one fusing resistor, see Crtical Components for more details), for examination and test.

-- Only limited tests were performed on Model WA-13A05FU because of similarity in construction to previously evaluation.

-- Unless otherwise indicated, all tests were conducted in YANG MING INDUSTRIAL under DAP (WTDP) Program.

-- Test results relate only to the items tested.

-- The test methods and results of the following tests also have been reviewed and found in accordance with UL 60065, Audio, video and similar electronic apparatus - Safety requirements, 7th edition, 2007-12-11 that were considered representative of the same tests required by Canadian Standard, CAN/CSA-C22.2 No. 60065-03, Audio, Video and similar electronic apparatus - Safety requirements, 1st edition, 2006-04 + A1: 2006.

-- The tests in according with UL 60065 and CAN/CSA-C22.2 No. 60065-03 including:
FAULT CONDITIONS - GENERAL (4.3)
FAULT CONDITIONS - CLEARANCE AND CREEPAGE, INSULATING MATERIALS AND ELECTRONIC COMPONENTS (4.3.1, 4.3.2, 4.3.4)
DIELECTRIC STRENGTH AFTER FAULT CONDITIONS (11)
TOUCH CURRENT AFTER FAULT CONDITIONS (11.1)
(Supplement ID: 3-DataSheet-02) for details.

-- Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
Power Supply Reference Page	
Component Failure (5.3.1, 5.3.4, 5.3.7)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-09	CRD
Datasheet	2-11	3-Datasheet-01 for UL 60950
Datasheet	2-12	3-Datasheet-02 for UL 60065