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REPORT

on

DIRECT PLUG-IN AND CORD CONNECTED CLASS 2 POWER UNITS

Globtek Inc.
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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Class 2 power unit, GT-41052-AABB-X.X Series, where:

"GT-" designates GlobTek models also with UL 60950 ITE safety approval;

"41052" is the series designation;

"AA" is the rated output wattage designation, with a maximum value of "15";

"BB" is the standard rated output voltage designation, with values between "05" to "24"; and,

"X.X" designates the optional deviation, subtracted from standard output voltage in 0.1 volt increments.

GENERAL:

The units covered by this Report are direct plug-in type Class 2 power units, with detachable non polarized parallel blades.

The unit consists of a transformer and other related electronic circuitry housed in a thermoplastic enclosure.

ELECTRICAL RATING:

	Input			Output	
Models	V	Hz	A	V dc	A
GT-41052-1305(-X.X)	120-270	50-60	0.6	5.0	2.6
GT-41052-1506(-X.X)	120-270	50-60	0.6	6.0	2.5
GT-41052-1507(-X.X)	**120-270**	**50-60**	**0.6**	**7.0**	**2.14**
GT-41052-1509(-X.X)	**120-270**	**50-60**	**0.6**	**9.0**	**1.7**
GT-41052-1512(-X.X)	**120-270**	**50-60**	**0.6**	**12.0**	**1.25**
GT-41052-1515(-X.X)	**120-270**	**50-60**	**0.6**	**15.0**	**1.0**
GT-41052-1518(-X.X)	**120-270**	**50-60**	**0.6**	**18.0**	**0.84**
GT-41052-1520(-X.X)	**120-270**	**50-60**	**0.6**	**20.0**	**0.75**
GT-41052-1524(-X.X)	**120-270**	**50-60**	**0.6**	**24.0**	**0.63**

The Models listed here are the standard models which the custom versions are based on. Custom units are obtained using the opt. “A.B” modifier noted above

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

USL - indicates investigation to United States Standard UL 1310 5th Edition.

CNL - indicates investigation to Canadian National Standard C22.2 No. 223-M91, June 1991.

These units have additionally been evaluated to UL2097, the Standard for Double Insulation Systems For use in Electronic Equipment, and CSA C22.2 No. 0.1-M1985 and TIL I-31, for CSA Double Insulation requirements..

CONSTRUCTION DETAILS:

The unit or units shall be constructed in accordance with the following items. See also Sec. Gen., Construction Details.

Spacings - Minimum spacings between live parts of opposite polarity, between live and dead-metal parts (and between live parts and a metal enclosure) shall be as indicated below:

	Minimum Spacings, mm	
V, rms	Through Air and Over Surface	Shortest Distance to Metal Enclosure
50 or less	(1.6)	(1.6)
50-150	(1.6)	(6.4)
151-250	(4.8)	(6.4)
251-600	(6.4)	(12.7)

Marking – See Sec. Gen., Permanently ink-stamped, hot stamped, silk screened, or provided as label; label employed is covered as a Recognized Component Marking and Labeling System suitable for application to the surface involved and having a minimum operating temperature of 80°C.

Soldered Connections - All soldered connections are mechanically secured before soldering. When hand soldered, leads on printed circuit boards are bent over prior to soldering.

Exception: Printed circuit board assemblies that are wave soldered.

Information Marking - Indicates company name or trademark, model number, date of other dating period of manufacture, cautionary statements, and electrical ratings including: Input voltage frequency, and watts; output voltage and current ac.

Date of Manufacture Marking - Four digit code. First two digits represent the year and last two digits represent the week.

MODEL GT-41052-1506, Represents all Models FIG. 1

1. Enclosure (Cover) - R/C (QMFZ2), by GE Plastics, Type SE1, SE100, or C2950, rated V-1, 110° C. Dimensions 72 by 43 by 13 mm, min. 1.9 mm thick. Provided with spring clip and 2 metal prongs for attachment to detachable blades. See fig. 1.

2. Enclosure (Base) - Same as enclosure cover, except dimensions 73 by 42.5 by 21 mm, min. 1.9 mm thick. Enclosure base secured to enclosure cover by ultrasonic weld.

3. Output Strain Relief - Integrally molded with output cord. Secured by 2 enclosure halves forming 6 mm by 7 mm opening.

4. Output Cord - (SEC) – Types XT, SPT-1 or SPT-2, 16-20 AWG,rated VW-1, 105 °C. Thickness of insulation on each conductor plus thickness of cord jacket, if provided, totals 0.33 mm (0.013 in.). One end of cord terminates and soldered to PWB, other end terminates in a nonstandard polarized output connector. Cord minimum 6 ft (1.8 m) external length.

   Alternate Ouput Cord – Same as above except Style 1185, 1181, or 2464, 16-20 AWG, rated VW-1, min. 80 °C, 300V.

5. Blades – Detachable (Nonpolarized) - See Sec. Gen. Secured to enclosure cover by groove and spring clip.

6. Fuse F1 –(Pri) – R/C (JDYX2) by Conquer Electronics Co. Ltd., rated 2A, min. 250 V.

   Alternate F1 - Listed (JDYX) Rated 2 A, min. 250 V.

Fig. 2

7. Printed Wiring Board R/C (ZPMV2) – rated V-1 or better, minimum 130 °C.

8. Varistor (ZR1) – R/C (XHUT2) – manufactured by (Centra Science Corp., type CNR-07D471K), rated min. 125 V.

9. Capacitor (CX1) - R/C (FOWX2), Rated 0.15 uF, 250 V.

10. Inductor (NF1) – type NF0001D, 130 °C

    a. Core - Ferrite Overall 15.5 by 11.0 by 3.0 mm

    b. Bobbin – R/C (QMFZ2) – 3 flange, by Chan Chun Plastics Co., type T373J or T375J, rated V-0, min. 1.0 mm thick.

    c. Coil – Copper magnet wire 0.19 mm diameter by 180 turns.

11. Bridge Diode (BD1) – rated min. 1A, 600 V.

12. Bleeder Resistors (RA,RB) – SMD type, 2 M ohm, ¼ W

13. Capacitor (C1) - Electrolytic, Rated 33 uF, 400 V dc.

14. Transistor (Q1) – Secured to heatsink, min. 4 A, 600 V.

15. Opto Isolator (U2) – R/C (FPQU2) by (Sharp Corp. Electronic Components Group, type PC817), Isolation voltage 3000 VAC minimum.

    Alternate (U2) – R/C (FPQU2) same as above except by NEC Compound Semiconductor PS-2701-1-Series.

16. Capacitor (CY1) - R/C (FOKY2), Rated 2.2 pF, 250 V.

17. Isolation Rectifier (D3) – (by Won-Top Electronics, type SB1640FCT), rated 16 A, 35 V RMS reverse.

18. Transformer – R/C (OBJY2) – Class B insulation system, manufactured by Top Nation Electronic. Ltd., type M7A90.

    Transformer - Constructed as follows:

    a. Core - Ferrite, 23 by 19 by 5.5 mm.

    b. Winding - Enameled copper magnet wire, random wound.

    c. Secondary Winding – R/C (OBJT2) Triple insulated wire, by Totoku Electric, type TIW-E, rated 155 °C.

    d. Primary Outerwrap - Two layers of 0.05 mm thick polyester film tape.

    e. Primary Secondary/Core provided by outerwrap and bobbin wall.

f. Primary/Secondary – 3 layers polyester film tape 0.05 mm thick and Triple insulated wire.

g. Bobbin - Two flange bobbin. R/C (QMFZ2), by Hitachi Chemical Co., Ltd., Type Phenolic CP-J-8800, rated V-0, min. 0.71 mm thick.

19. Tubing/Sleeving – R/C (YDPU2) by (Zeus Industrial Products Inc., type TFE-TW-300), 0.13 mm thick.

20. Heatsink – For (Q1) Metallic U-shaped, overall dimensions 37.1 by 16.0 by 11.0 mm, 1.5 mm thick.

21. Heatsink – For (D3) Metallic L-shaped, overall dimensions 18.5 by 16.0 by 11.0 mm. 1.5 mm thick.

22. Internal plastic insulation R/C (QMFZ2) – rated min. V-2, provided between PWB and internal Contacts for input blades, 30 mm by 19 mm, 0.63 mm thick. Conducted 5000V Dielectric on material. See fig # 1.