



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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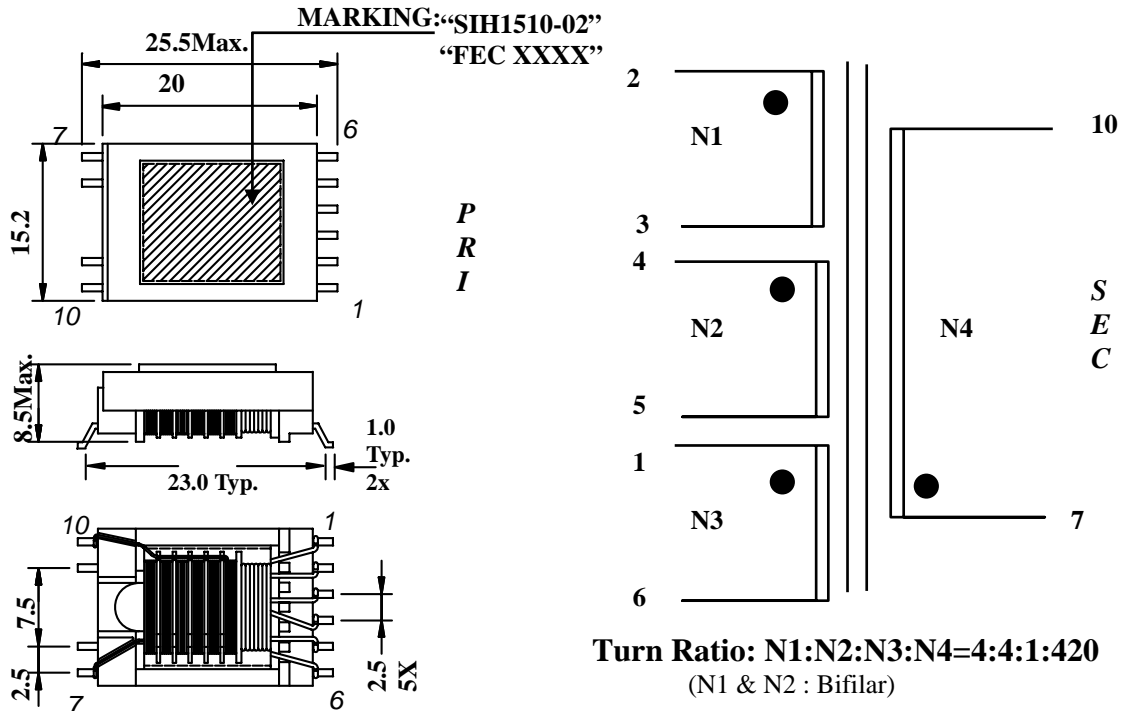
Web: frontierusa.com

CCFL Inverter Transformer—SIH1510-02

A. Electrical specification:

| Part No. | Mark | Suitable Frequency | Max. Open Voltage | Max. Lamp Watt. | Efficiency |
|------------|------------|--------------------|-------------------|-----------------|------------|
| SIH1510-02 | SIH1510-02 | 40KHz~200KHz | 1800 V rms. | 6W | 78% |

B. Schematics and Mechanical dimensions: (Unit: mm)



C. Electrical Data:

| Term | Item | Spec. | Condition |
|-----------|--|---------------------|----------------------|
| Hi-Pot | Primary to Secondary | 2000 VAC / 1 Minute | @Cut off current=3mA |
| | Pri. To Core / Sec. to Core | 2000 VAC / 1 Minute | |
| Isolation | Pri. to Sec. / Pri. To Core / Sec. to Core | 100 MΩ Min. | @ 500 VDC |

D. Insulation:

| Winding | Start | Finish | L (@ 50KHz, 1.0V) | DCR Ω (@25°C) |
|---------|-------|--------|-------------------|---------------|
| N1 | 3 | 2 | 22.5 uH ± 20 % | 0.150 Max. |
| N2 | 5 | 4 | 22.5 uH ± 20 % | 0.150 Max. |
| N3 | 6 | 1 | 1.3 uH Ref. | 0.045 Max. |
| N4 | 7 | 8 | 242 mH ± 15 % | 310 Max. |

E. Features:

- Low profile height: Maximum 5.0mm.
- High efficiency.
- Surface mount.
- Suitable for standard IR re-flows soldering.

F. Uses:

- Black Light power supplies transformer Available.
- Personal Computer.

Note: **RoHS** compliant; for the **ROHS** parts, we add "**-LFR**" at the end of the P/N.

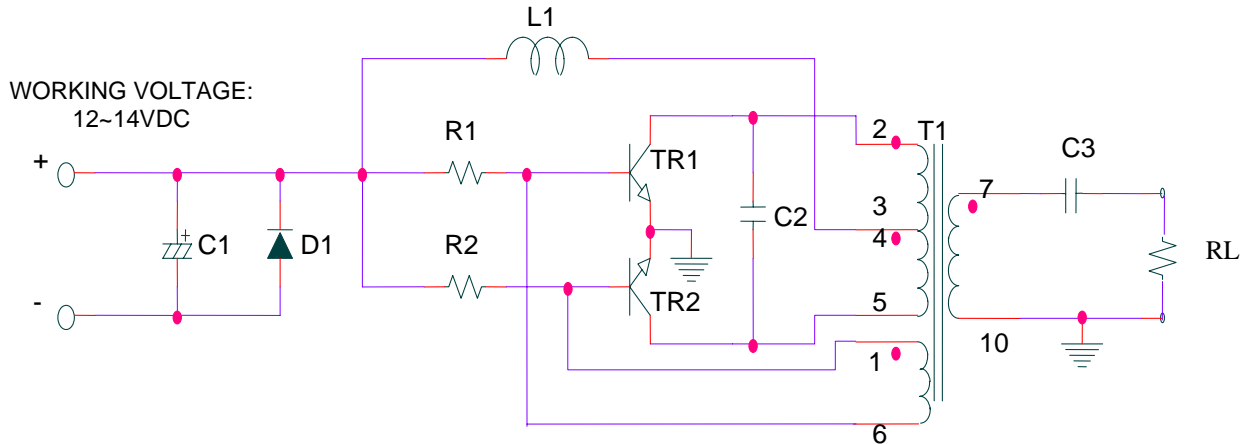


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G. Testing Circuit:



Note: Part List for Testing Circuit:

| Parts | Package | Spec |
|-------|-------------|-------------|
| R1 | 0805 | 1.2K |
| R2 | 0805 | 1.2K |
| RL | 10W | 80K |
| C1 | | 22uF/25V |
| C2 | | 0.1uF/100V |
| C3 | | 33pF/3KV |
| TR1 | SC-51 | 2SC2655 |
| TR2 | SC-51 | 2SC2655 |
| DI | DO41 | 1N4004 |
| L1 | CSN075F101M | CSN075F101M |
| T1 | SIH1510-02 | SIH1510-02 |

H. Preliminary Electrical Characteristics:

| Parameter | Min. | Nom. | Max. | Unit |
|----------------|--------------|------|------|------|
| Input Voltage | 12 | 13 | 14 | V |
| Input Current | 440 | 490 | 540 | mA |
| Lamp Frequency | 46 | 47 | 48 | KHz |
| Output Voltage | 600 | 660 | 710 | Vrms |
| Output Current | 7.1 | 7.7 | 8.4 | mA |
| RL | 80K Ω | | | |