

DS-1302WF



Features

- Drive 2-lamp
- Wide input voltage operation
- Accurate and stable output current regulation
- Long lamp life with soft start
- Low sleep current
- Voltage Dimming control
; no influence to power ripple
- Protection against lamp open or failure
- High efficiency
- Low EMI and spurious noise

Applications

- 3.8~15" Desktop LCD monitor
- Industrial LCD panel

Electrical characteristics

| Parameter | Symbol | Conditions* | Specification | | | Unit |
|--------------------------|--------------|---------------------------------|---------------|-------|------|-------|
| | | | Min | Typ | Max | |
| Input supply voltage | V_{IN} | | 10.8 | 12.0 | 13.2 | V |
| Input current | I_{IN} | $V_{IN}=12V, V_{BRT}=0V$ | 0.60 | 0.70 | 0.80 | A |
| Full bright lamp current | $I_{O(MAX)}$ | $V_{IN}=12V, V_{BRT}=0V$ | 5.0 | 6.0 | 7.0 | mArms |
| Minimum lamp current | $I_{O(MIN)}$ | $V_{IN}=12V, V_{BRT}=5.0V$ | 1.0 | 2.0 | 3.0 | mArms |
| Operating frequency | F_O | $V_{IN}=12V, V_{BRT}=0V$ | 37 | 42 | 47 | KHz |
| Dimming ratio | | $V_{IN}=12V, V_{BRT}=0$ to 5.0V | | 2 : 1 | | |
| Sleep current | I_{SLEEP} | $V_{IN}=12V, V_{SLEEP}=0V$ | | | 10 | mA |
| Efficiency | | $V_{IN}=12V, V_{BRT}=0V$ | 80 | 88 | | % |

* At the reference BOE-Hydis(HV104X01-100) LCD Module

DS-Plus Inc./ ()

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Absolute maximum ratings

| | | |
|--|-------|-------------------|
| Input supply voltage (V_{IN}) | ----- | -0.3V to 14V |
| Output current (I_O) | ----- | 8.0mArms |
| Output power | ----- | 5.0W |
| Sleep & Bright adjust signal voltage (V_{SLEEP} , V_{BRT}) | ---- | -0.3V to V_{IN} |
| Ambient operating temperature | ----- | 0 °C to 50 °C |
| Storage temperature range | ----- | -30 °C to 80 °C |
| Operating & storage humidity | ----- | 10 % to 85 % |

Recommended operating conditions (R.C.)

| Parameter | Symbol | Recommendation | | | Units |
|-------------------------------------|--------------|----------------|------|------|-------|
| | | Min | R.C. | Max | |
| Input supply voltage | V_{IN} | 10.8 | 12.0 | 13.2 | V |
| Full bright lamp current | $I_{O(MAX)}$ | 5.0 | 6.0 | 7.0 | mArms |
| Brightness control voltage range | V_{BRT} | 0 | | 5.0 | V |
| Lamp on/off control voltage | V_{SLEEP} | 3.0 | 5.0 | 7.0 | V |
| Lamp operating voltage | V_O | | 520 | | Vrms |
| Operating ambient temperature range | T_A | 0 | | 50 | °C |

Connector and functional pin description

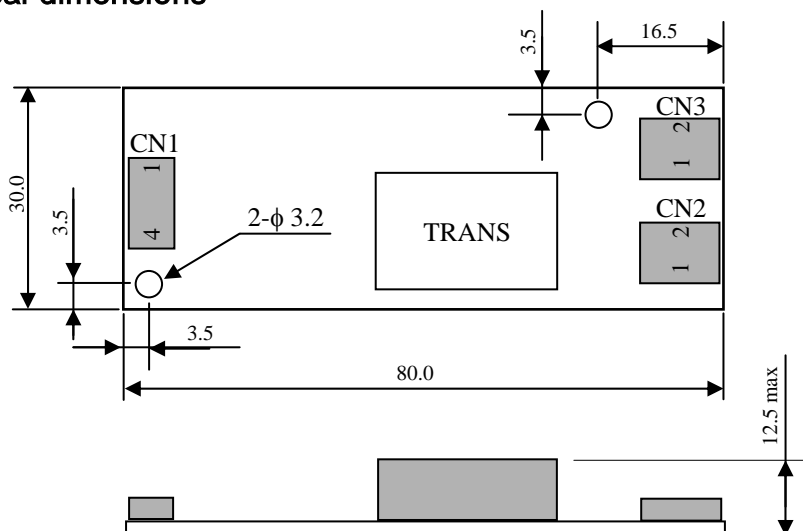
- CN1 Connector : 12505WR-04A00 (Yeonho or Equivalent)
- CN1 - 1 V_{IN} (DC input ; 12.0V)
 - CN1 - 2 G_{ND} (Power supply return)
 - CN1 - 3 V_{SLEEP} (Lamp On/Off control ; Off at Low, On at High)
 - CN1 - 4 V_{BRT} (Bright adjust ; 0 to 5.0V)

- CN2 Connector (Option) : 20015WR-05 (Yeonho or Equivalent)
or 35001WR-02A00 (Yeonho or Equivalent)

- CN2 - 1 High voltage
- CN2 - 2 Lamp current return

Mechanical dimensions

Tolerance : ± 0.2
Unit : mm



Notice : The specification is subject to change without notice