

## DS-1305WA (7.5mA)



### Features

- Drive 2-lamps
- Nominal current 7.5 mArms for each lamp
- 10.8 to 13.2 V input voltage range
- Accurate and stable output current regulation
- Accommodation to various LCD-module
- Voltage dimming control  
; no influence to power ripple
- Protection against lamp open or failure
- Long lamp life with soft start
- High efficiency
- Low EMI and spurious noise

### Applications

- 15~22" 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	$I_{IN}$	$V_{IN}=12V, V_{BRT}=0V$	0.8	1.0	1.2	A
Full bright lamp current	$I_{O(MAX)}$	$V_{IN}=12V, V_{BRT}=0V$	7.0	7.5	8.0	mArms
Minimum lamp current	$I_{O(MIN)}$	$V_{IN}=12V, V_{BRT}=5.0V$	2.0	2.5	3.0	mArms
Operating frequency	$F_O$	$V_{IN}=12V, V_{BRT}=0V$	37	42	47	KHz
Open lamp output voltage	$V_O$	1 or more lamp open	-	-	0	Vrms
Dimming ratio(voltage cont)		$V_{IN}=12V, V_{BRT}=0$ to 5.0V	2 : 1	3 : 1		
Sleep current	$I_{IN}$	$V_{IN}=12V, V_{SLEEP}=0V$			10	mA
Efficiency		$V_{IN}=12V, V_{BRT}=0V$	80	88		%
Striking voltage	$V_S$	$V_{IN}=12V, V_{BRT}=0V$		1500		Vrms

\* At the reference 17"LCD-Module(LM171W02) of LG-Philips

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**Absolute maximum ratings**

Input supply voltage ( $V_{IN}$ )	-----	-0.3V to 14V
Output voltage, no load	-----	Internally limited to zero volt
Output current ( $I_O$ )	-----	9.0mArms
Output power (per lamp)	-----	7.0W
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.)**

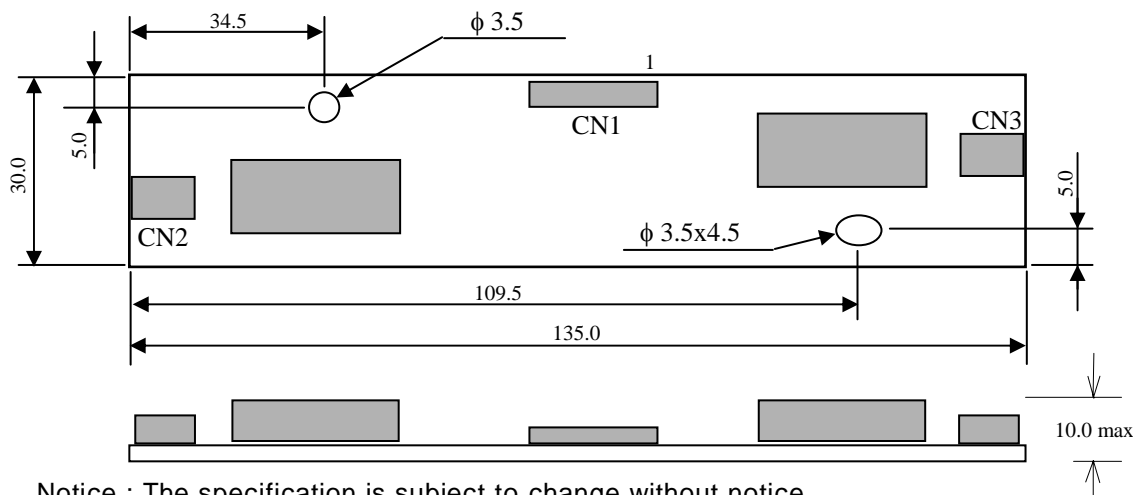
Parameter	Symbol	Recommendation			Units
		Min	R.C.	Max	
Input supply voltage	$V_{IN}$	10.8	12.0	13.2	V
Full bright lamp current	$I_{O(MAX)}$	7.0	7.5	8.0	mArms
Brightness control voltage range	$V_{BRT}$	5.0		0	V
Lamp on/off control voltage	$V_{SLEEP}$	3.0	5.0	7.0	V
Lamp operating voltage	$V_O$		800		Vrms
Operating ambient temperature range	$T_A$	0		50	°C

**Connector and functional pin description**

- CN1 Connector : 12505WR-12A00(YEONHO or Equivalent)
  - CN1-1,2,3  $V_{IN}$  (DC Input ; 12.0V)
  - CN1-4,5,7,8,10,12  $G_{ND}$  (Power supply return)
  - CN1-9  $V_{SLEEP}$  (Lamp On/Off control ; Off at Low, On at High)
  - CN1-11  $V_{BRT}$  (Bright adjust ; 0 to 5.0V)
  - CN1-6 N.C
- CN2,3 Connector : 35001WR-02A00 (YEONHO or Equivalent)  
or 20015WR-05A00 (YEONHO or Equivalent)
  - CN2,3 -1 High voltage
  - CN2,3 -2 Lamp current return

**Mechanical dimensions**

Tolerance : ± 0.5  
Unit : mm



Notice : The specification is subject to change without notice