

**0.8 inch ( 20.32 mm )**

**SINGLE DIGIT NUMERIC LED DISPLAYS UVS-340XL SERIES**

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**DESCRIPTION**

The UVS-3401L/3403L is 0.8 inch (20.32mm) height single digit display.  
Choices of five colors-high efficiency red/bright red/green/yellow/red orange.  
All devices displays have gray face and white segments.  
The bright red and green LED chip are made from GaP on a transparent GaP substrate.  
The yellow and red orange LED chip are made from GaAsP on a transparent GaP substrate.

**FEATURES**

- Industuy Standard Size
- Wide Viewing angle
- Continuous uniform segments.
- Excellent characters appearance
- Low power requirement

**DEVICES**

PART NO.	DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
UVS-3401L	Common Anode	Fig. 1	Fig. 2
UVS-3403L	Common Cathode		

**ABSOLUTE MAXIMUM RATINGS**

@ T<sub>A</sub>=25 °C

PARAMETER	HLEFF. RED	BRIGHT RED	GREEN	YELLOW	RED ORANGE	UNIT
Power Dissipation Per Segment	75	40	75	60	75	mW
Peak Forward Current Per Segment ( 1/10 Duty Cycle, .0.1ms pulse width)	100	60	100	80	100	mA
Continuous Forward Current Per Segment	25	15	25	20	25	mA
Derating Linear From 25°C Per Segment	0.33	0.2	0.33	0.27	0.33	mA/°C
Reverse Voltage Per Segment	5	5	5	5	5	V
Operating Temperature Range	-35°Cto+85°C					
Storage Temperature Range	-35°Cto+85°C					
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C						



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PACKAGE DIMENSIONS

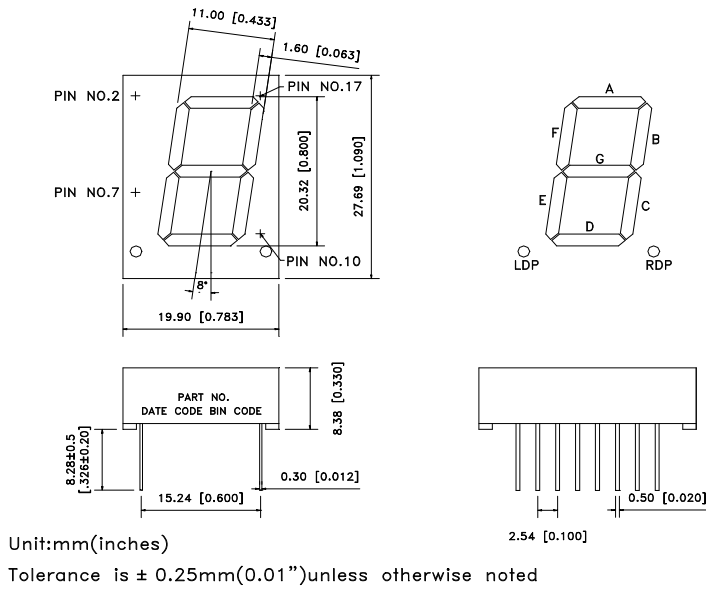


Fig. 1

INTERNAL CIRCUIT DIAGRAM

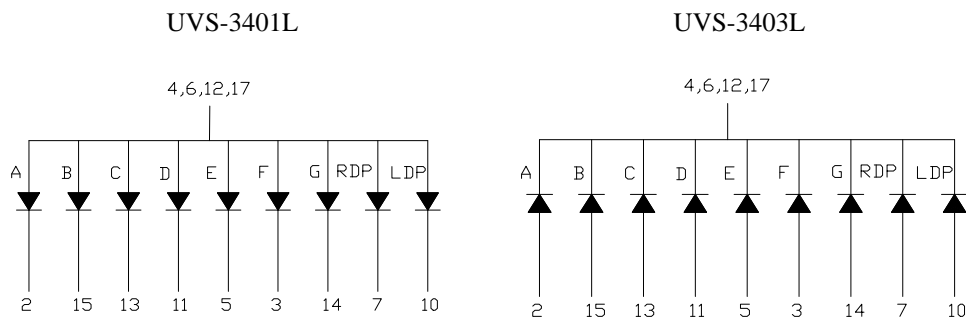


Fig. 2

0.8 inch ( 20.32 mm )

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**PIN CONNECTION**

PIN	CONNECTION	
	UVS-3401L	UVS-3403L
1	NO PIN	NO PIN
2	CATHODE A	ANODE A
3	CATHODE F	ANODE F
4	COMMON ANODE *1	COMMON CATHODE *1
5	CATHODE E	ANODE E
6	COMMON ANODE *1	COMMON CATHODE *1
7	CATHODE L . D . P .	ANODE L . D . P .
8	NO PIN	NO PIN
9	NO PIN	NO PIN
10	CATHODE R . D . P .	ANODE R . D . P .
11	CATHODE D	ANODE D
12	COMMON ANODE *1	COMMON ANODE *1
13	CATHODE C	ANODE C
14	CATHODE G	ANODE G
15	CATHODE B	ANODE B
16	NO PIN	NO PIN
17	COMMON ANODE *1	COMMON CATHODE *1
18	NO PIN	NO PIN

NOTES: 1. PIN 4,6,12 & 17 are internally connect

**ELECTRICAL/OPTICAL CHARACTERISTICS**

**HI.EFF. RED (UVS-3401LHR / 3403LHR)**

@ T<sub>A</sub>=25 °C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>V</sub>	800	2400		μcd	I <sub>F</sub> = 10 mA
Peak Emission Wavelength	λ <sub>p</sub> /Hue		635/623		nm	I <sub>F</sub> = 20 mA
Spectral Line Half-Width	Δλ		40		nm	I <sub>F</sub> = 20 mA
Forward Voltage, Per Segment	V <sub>F</sub>		2.0	2.6	V	I <sub>F</sub> = 20 mA
Reverse Current, Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5 V
Luminous Intensity Matching Rat	I <sub>v</sub> - m			2:1		I <sub>F</sub> = 10 mA

**BRIGHT RED (UVS-3401LP / 3403LP)**

@ T<sub>A</sub>=25 °C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>V</sub>	320	950		μcd	I <sub>F</sub> = 10 mA
Peak Emission Wavelength	λ <sub>p</sub> /Hue		697/657		nm	I <sub>F</sub> = 20 mA
Spectral Line Half-Width	Δλ		90		nm	I <sub>F</sub> = 20 mA
Forward Voltage, Per Segment	V <sub>F</sub>		2.1	2.6	V	I <sub>F</sub> = 20 mA
Reverse Current, Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5 V
Luminous Intensity Matching Rat	I <sub>v</sub> - m			2:1		I <sub>F</sub> = 10 mA

**UNI**

Unity Opto Technology Co., Ltd.

11/14/2000

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## SINGLE DIGIT NUMERIC LED DISPLAYS UVS-340XL SERIES

### ELECTRICAL/OPTICAL CHARACTERISTICS

#### GREEN (UVS-3401LG / 3403LG)

@ T<sub>A</sub>=25 °C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>V</sub>	800	2400		mcd	I <sub>F</sub> = 10 mA
Peak Emission Wavelength	λ <sub>p</sub> /Hue		565/569		nm	I <sub>F</sub> = 20 mA
Spectral Line Half-Width	Δλ		30		nm	I <sub>F</sub> = 20 mA
Forward Voltage, Per Segment	V <sub>F</sub>		2.1	2.6	V	I <sub>F</sub> = 20 mA
Reverse Current, Per Segment	I <sub>R</sub>			100	mA	V <sub>R</sub> = 5 V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>			2:1		I <sub>F</sub> = 10 mA

#### YELLOW (UVS-3401LY / 3403LY)

@ T<sub>A</sub>=25 °C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>V</sub>	800	2400		μcd	I <sub>F</sub> = 10 mA
Peak Emission Wavelength	λ <sub>p</sub> /Hue		585/588		nm	I <sub>F</sub> = 20 mA
Spectral Line Half-Width	Δλ		35		nm	I <sub>F</sub> = 20 mA
Forward Voltage, Per Segment	V <sub>F</sub>		2.1	2.6	V	I <sub>F</sub> = 20 mA
Reverse Current, Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5 V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>			2:1		I <sub>F</sub> = 10 mA

#### RED ORANGE (UVS-3401LE / 3403LE)

@ T<sub>A</sub>=25 °C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>V</sub>	800	2400		μcd	I <sub>F</sub> = 10 mA
Peak Emission Wavelength	λ <sub>p</sub> /Hue		630/621		nm	I <sub>F</sub> = 20 mA
Spectral Line Half-Width	Δλ		40		nm	I <sub>F</sub> = 20 mA
Forward Voltage, Per Segment	V <sub>F</sub>		2.0	2.6	V	I <sub>F</sub> = 20 mA
Reverse Current, Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5 V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>			2:1		I <sub>F</sub> = 10 mA



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**TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES**

( Ambient Temperature =25°C Unless Otherwise Noted )

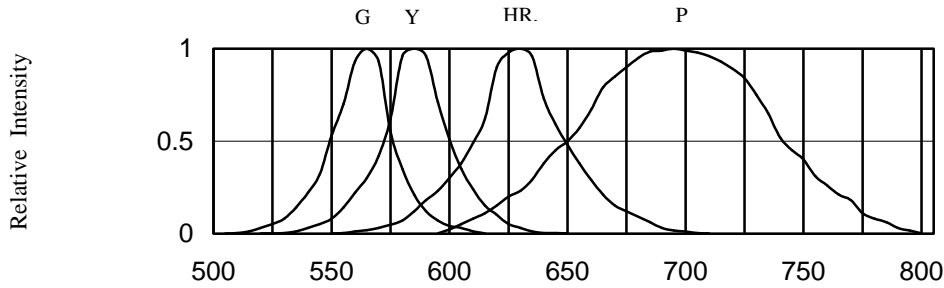


FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

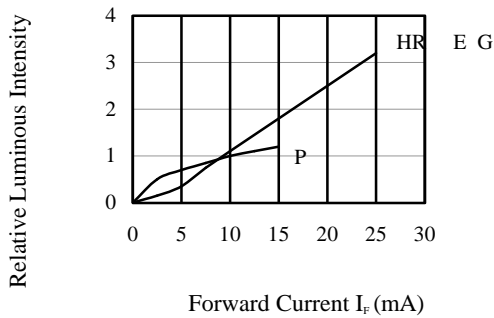


FIG.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

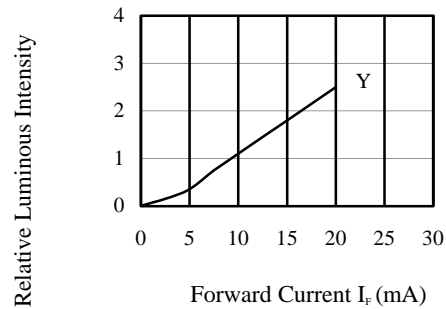


FIG.2-1 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

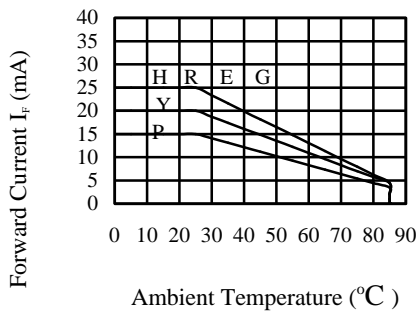


FIG.3 ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

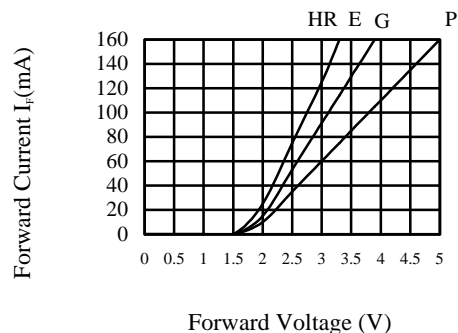


FIG.4 FORWARD CURRENT VS. FORWARD VOLTAGE