

Double Digits LED Numeric Display

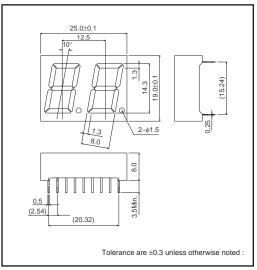
LBP-602 A / K2 Series

LBP-602 A / K2 series are the numberical display units featuring ROHM's in-house 4-element(AlGaInP) high-brightness LED dies. Their luminous intensity is top class in the industry while degradation is considerably slow, which helps to keep illumination vividness almost unchanged and the image of sets high over a long period of time.

Features

- 1) 14.3mm for letter height, two-lines LED numerical displays.
- About 10 times more luminous intensity than the conventional products by use of 4-element LED dies. (in case of orange color)
- The same luminous intensity as the conventional products at their 1/10 of current, which contributes lots to energy-saving of sets.
- 4)Light-leakage from segments probable with the small display packages is very rare.
- 5)Both anode common type and cathode common type are available in lineup for each color.

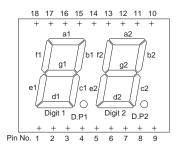
•Dimensions (Unit : mm)



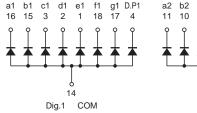
•Selection guide

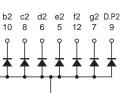
Emitting color Common	Red	Orange	Yellow	Green
Anode	LBP-602VA2	LBP-602DA2	LBP-602YA2	LBP-602MA2
Cathode	LBP-602VK2	LBP-602DK2	LBP-602YK2	LBP-602MK2

Pin assignments



•Inner circuit (anode common)





Dig.2 COM

Segment "e2" Digit 1 Common 14 5 6 Segment "d2" 15 Segment "b1" Segment "a1" 7 Segment "g2" 16 Segment "c2" 17 Segment "g1" 8 9 D.P2 18 Segment "f1"

Function

Segment "e1"

Segment "d1"

Segment "c1"

D.P1

Pin No.

10

11

12

13

Function

Segment "b2"

Segment "a2"

Segment "f2"

Digit 2 Common

(cathode common)

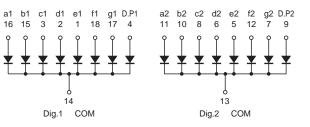
Pin No

1

2

3

4



•Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Red	Orange	Yellow	Green	Unit	
		LBP-602VA2 / VK2	LBP-602DA2 /DK2	LB-602YA2 / YK2	LBP-602MA2 / MK2		
Power dissipation	Po	896	896	896	896	mW	
Power dissipation	P _D / seg	56	56	56	56	mW	
Forward current	lF	20	20	20	20	mA	
Peak forward current	IFP	60 *	60 *	60 *	60 *	mA	
Reverse voltage	VR	5	5	5	5	V	
Operating temperature	Topr		-25 te	o +75		°C	
Storage temperature	Tstg		-30 te	0 +85		°C	

* Pulse width 1ms Duty 1 / 5

•Electrical characteristics (Ta=25°C)

Parameter	ameter Symbol		Red		Orange		Yellow		Green		Unit
			Тур.	Max.	Тур.	Max.	Тур.	Max.	Тур.	Max.	
Forward voltage	VF	I⊧=10mA	1.9	2.8	1.9	2.8	1.9	2.8	1.9	2.8	V
Reverse current	IR	Vr=3V	-	100	-	100	-	100	_	100	μΑ
Peak wavelength	λP	I _F =10mA	650	_	605*	_	590	_	572	-	nm
Spectral line half width	Δλ	I _F =10mA	20	-	20 *	-	20	-	20	-	nm

O The products are not radiations resistant.

•Luminous intensity

Color	λ _P (nm)	Туре	Min.	Тур.	Unit	
Red	650	LBP-602VA2	14	36	mcd	
Rea	000	LBP-602VK2	14	30	mca	
Orongo	605	LBP-602DA2	56	250	mcd	
Orange	005	LBP-602DK2	50	250	mea	
Yellow	590	LBP-602YA2	90	450	mcd	
reliow	590	LBP-602YK2	90	430	mcu	
Green	572	LBP-602MA2	36	100	mcd	
Green	572	LBP-602MK2	- 30	100	mca	

 \bigcirc A condition of measurement is I_F=10mA.

•Electrical and optical characteristic curve

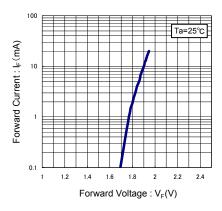


Fig.1 Forward Current - Forward Voltage

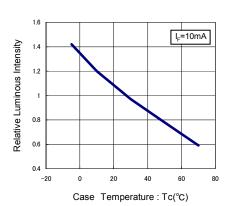


Fig.3 Relative Luminous Intensity -Case Temperature(°C)

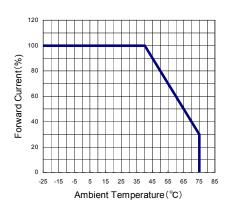


Fig.5 Derating

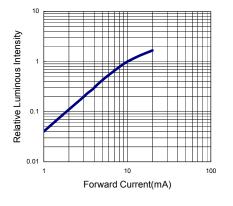
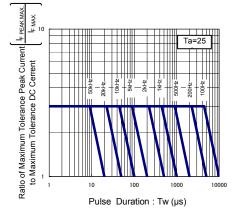
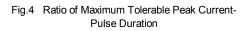


Fig.2 Relative Luminous Intensity -Forward Current





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