High efficiency, three-digit numeric displays

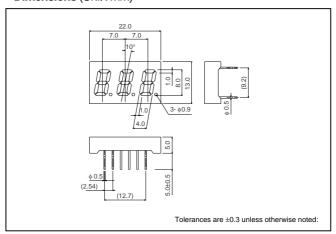
LB-303AK Series

The LB-303AK series were designed to meet the need for multi-digit numeric displays. These LED numeric displays use GaAsP on GaP for the emitting material (with the exception of green) and are housed in an epoxy resin package. They are three-digit displays with a character height of 8.0 mm.

Features

- 1) Height of character: 8.0 mm
- 2) High efficiency in a compact package.
- 3) Common anode and common cathode configurations are available for red, orange and green.
- 4) The package surface is painted black and the segments are colored the display color.

●Dimensions (Unit:mm)

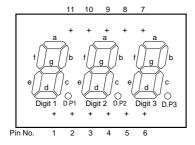


Selection guide

Emitting color Common	Red	Orange	Green	
Anode	LB-303VA	LB-303DA*	LB-303MA	
Cathode	LB-303VK	LB-303DK*	LB-303MK	

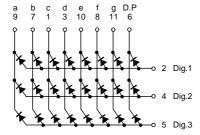
^{*}Order-based production.

Pin assignments



Pin No.	Function
1	Segment "c"
2	Digit 1 Common
3	Segment "d"
4	Digit 2 Common
5	Digit 3 Common
6	Segment D.P
7	Segment "b"
8	Segment "f"
9	Segment "a"
10	Segment "e"
11	Segment "g"

●Internal circuit schematic (example of common anode)



● Absolute maximum ratings (Ta = 25°C)

Description	Courselle all	Red	Orange	Green	
Parameter	Symbol	LB-303VA / VK	LB-303DA / DK	LB-303MA / MK	Unit
Power dissipation	PD	960	960	1440	mW
Power dissipation	P₀/ seg	40	40	60	mW
Forward current	lF	15	15	20	mA
Peak forward current	I FP	60*	60*	60*	mA
Reverse voltage	VR	3	3	3	V
Operating temperature	Topr		°C		
Storage temperature	Tstg		°C		

^{*} Pulse width 1ms duty 1 / 5

● Electrical and optical characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	Red		Orange		Green		Unit			
			Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Offic
Forward voltage	VF	I _F = 10mA	_	2.0	2.8	-	2.0	2.8	-	2.1	2.8	V
Reverse current	lR	V _R = 3V	_	_	100	-	_	100	_	-	100	μА
Peak wavelength	λР	I _F = 10mA	_	650	_	-	610	_	_	563	-	nm
Spectral line half width	Δλ	I _F = 10mA	_	40	-	-	40	_	-	40	-	nm

O Not designed for radiation resistance.

Luminous intensity

Color	λр	Туре	Min.	Тур.	Max.	Unit
Red	650	LB-303VA	1.4	4.0	-	mcd
		LB-303VK	1.4			
Orange	610	LB-303DA	1.4	4.0	-	mcd
		LB-303DK	1.4			
Green	563	LB-303MA	0.0	0.0		
		LB-303MK	2.2	6.3	_	mcd

Note : Measured at IF = 10mA

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