

# Single Digit Surface Mount LED Numeric Display

## LF-301 A / K Series

LF-301 A / K series of Single Digit Surface Mount LED Numeric Display which the height of a letter 8mm have ROHM original structure that realizes re-flow soldering.

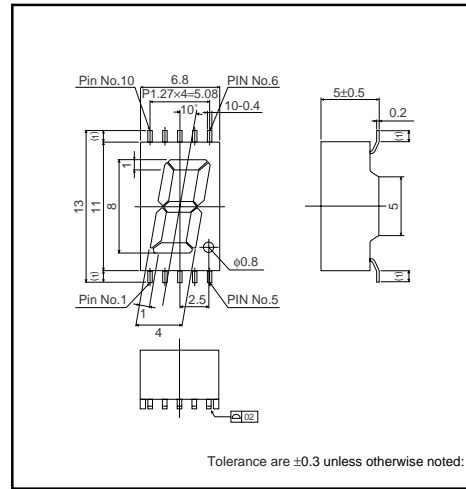
**●Features**

- 1) Re-flow soldering \*
  - 2) Pb-free available
  - 3) Automatic mounting with taping pack
- \*Number of re-flow process shall be recommend 1 time by our re-flow condition.

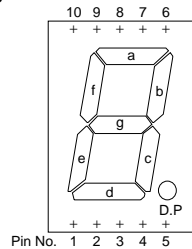
**●Selection guide**

Emitting color	Red	Green
Common		
Anode	LF-301VA	LF-301MA
Cathode	LF-301VK	LF-301MK

**●Dimensions (Unit : mm)**

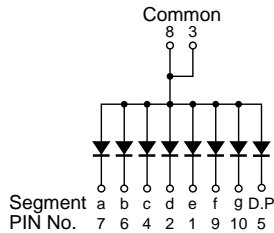


**●Pin assignments**

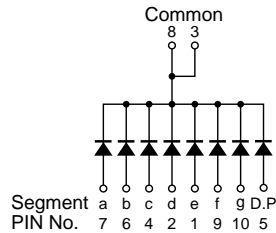


Pin No.	Function
1	Segment "e"
2	Segment "d"
3	Common
4	Segment "c"
5	D.P
6	Segment "b"
7	Segment "a"
8	Common
9	Segment "f"
10	Segment "g"

**●Equivalent circuit (anode common)**



**(cathode common)**



## LED displays

## ● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Red	Green	Unit
		LF-301VA / VK	LF-301MA / MK	
Power dissipation	P <sub>D</sub>	320	480	mW
Power dissipation	P <sub>D</sub> / seg	40	60	mW
Forward current	I <sub>F</sub>	15	20	mA
Peak forward current	I <sub>FP</sub>	60 *	60 *	mA
Reverse voltage	V <sub>R</sub>	5	5	V
Operating temperature	T <sub>opr</sub>	-25 to +75		°C
Storage temperature	T <sub>stg</sub>	-30 to +85		°C

\*Pulse width 1ms Duty 1 / 5

## ● Electrical characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Red		Green		Unit
			Typ.	Max.	Typ.	Max.	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	2.0	2.8	2.1	2.8	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =3V	–	100	–	100	μA
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> =10mA	650	–	563	–	nm
Spectral line half width	Δλ	I <sub>F</sub> =10mA	40	–	40	–	nm

© The products are not radiations resistant.

## ● Luminous intensity

Color	λ <sub>P</sub> (nm)	Type	Min.	Typ.	Unit
Red	650	LF-301VA	3.6	10	mcd
		LF-301VK			
Green	563	LF-301MA	3.6	10	mcd
		LF-301MK			

LED displays

●Electrical and optical characteristic curves

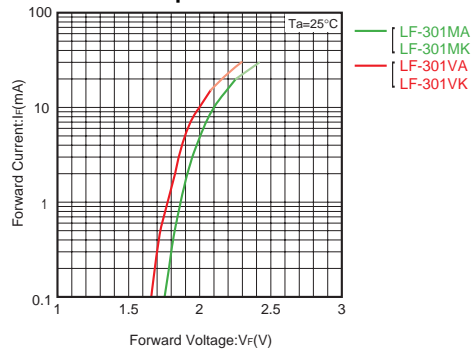


Fig.1 Forward Current - Forward Voltage

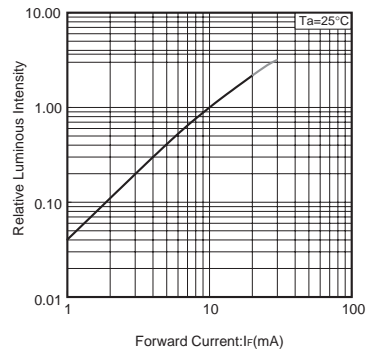


Fig.2 Relative Luminous Intensity - Forward Current

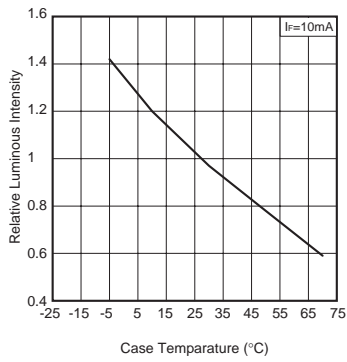


Fig.3 Relative Luminous Intensity - Case Temperature

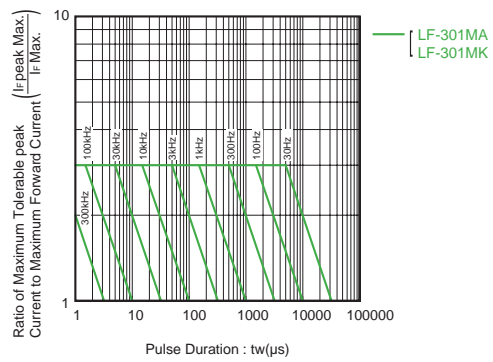


Fig.4 Ratio of Maximum Tolerable Peak Current - Pulse Duration ( I )

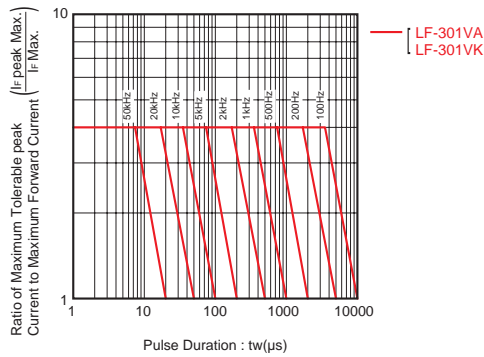


Fig.5 Ratio of Maximum Tolerable Peak Current - Pulse Duration ( II )

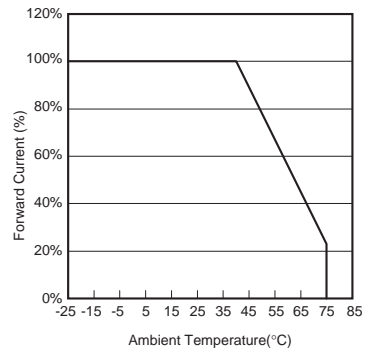


Fig.6 Derating

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