Single Digit Surface Mount LED Numeric Display

LF-3011 A / K Series

Data Sheet

LF-3011A / 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.

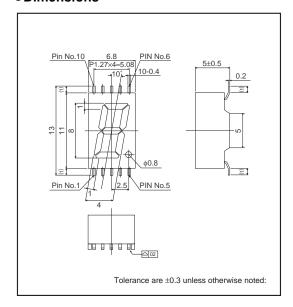
Features

- 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

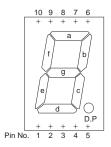
Selection guide

Emitting color Common	Red	Green	
Anode	LF-3011VA	LF-3011MA	
Cathode	LF-3011VK	LF-3011MK	

Dimensions

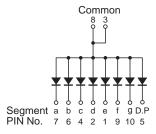


Pin assignments

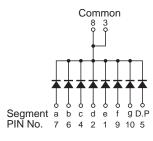


Pin No.	Function
1	Segment "e"
2	Segment "d"
3	Common
4	Segment "c"
5	D.P
6	Segment "b"
7	Segment "a"
8	Common
9	Segment "f"
10	Segment "g"

●Equivalent circuit (anode common)



(cathode common)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Red	Green	Unit
- Farameter		LF-3011VA / VK	LF-3011MA / MK	
Power dissipation	PD	320	480	mW
Power dissipation	P _D / seg	40	60	mW
Forward current	l _F	15	20	mA
Peak forward current	I _{FP}	60 *	60 *	mA
Reverse voltage	V _R	5	5	V
Operating temperature	Topr	-25 to	°C	
Storage temperature	Tstg	-30 to	°C	

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

●Electrical characteristics (Ta=25°C)

Parameter	Symbol Co	Conditions	Red		Green		Linit
		Conditions	Тур.	Max.	Тур.	Max.	Unit
Forward voltage	VF	I _F =10mA	2.0	2.8	2.1	2.8	V
Reverse current	IR	V _R =3V	-	100	-	100	μА
Peak wavelength	λ _P	I _F =10mA	650	-	563	-	nm
Spectral line half width	Δλ	I _F =10mA	40	_	40	_	nm

The products are not radiations resistant.

●Luminous intensity

Color	λ _P (nm)	Туре	Min.	Тур.	Unit
Red 650	650	LF-3011VA	3.6	10	mcd
	630	LF-3011VK	3.0		
Green 563	LF-3011MA	3.6	10	mad	
	303	LF-3011MK	3.6	10	mcd

LF-3011 A / K Series Data Sheet

•Electrical and optical characteristic curves

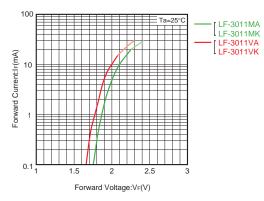


Fig.1 Forward Current - Forward Voltage

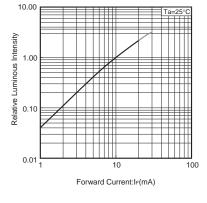


Fig.2 Relative Luminous Intensity - Forward Current

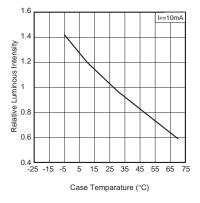


Fig.3 Relative Luminous Intensity - Case Temperature

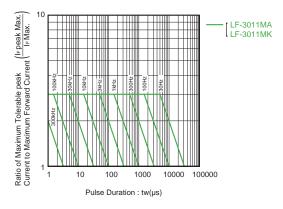


Fig.4 Ratio of Maximum Tolerable Peak Current - Pulse Duration (I)

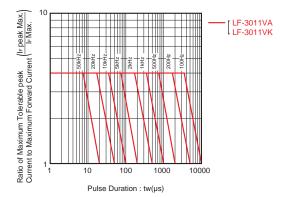


Fig.5 Ratio of Maximum Tolerable Peak Current - Pulse Duration (II)

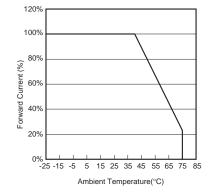


Fig.6 Derating

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