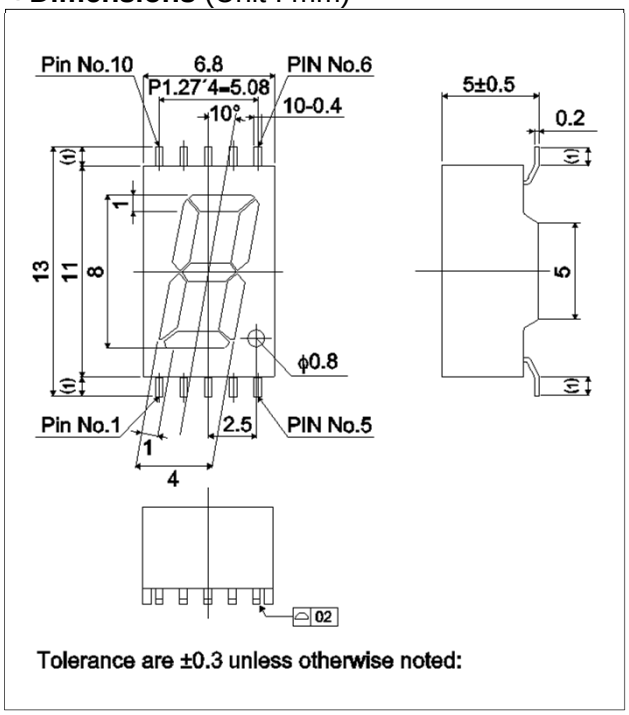
LF-3011A / K series of Single Digit Surface Mount LED Numeric Display
which the height of a letter 8mm have ROHM original structure that realizes re-flow soldering.

●Features

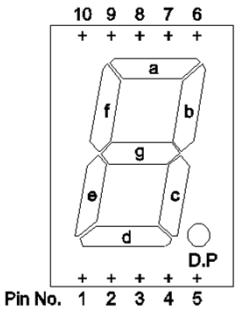
1) Re-flow soldering *
2) Pb-free available
3) Automatic mounting with taping pack

* Number of re-flow process shall be recommend 1 time by our re-flow condition

●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"

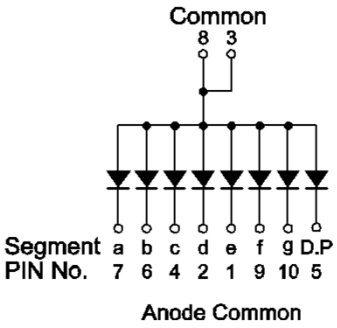
●Selection guide

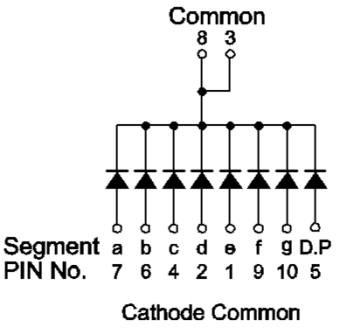
Common \ Emitting color	Red	Green
Anode	LF-3011VA	LF-3011MA
Cathode	LF-3011VK	LF-3011MK

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●Internal circuit schematic





●Absolute maximum ratings (T_a = 25°C)

Parameter	Symbol	Red	Green	Unit
		LF-3011VA / VK	LF-3011MA / MK	
Power dissipation	P_D	320	480	mW
Power dissipation	P_D / seg	40	60	mW
Forward current	I_F	15	20	mA
Peak forward current	I_{FP}	60 *	60 *	mA
Reverse voltage	V_R	5	5	V
Operating temperature	T_{opr}	−25 to +75		°C
Storage temperature	T_{stg}	−30 to +85		°C

* Pulse width 1ms, duty 1 / 5

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

Parameter	Symbol	Conditions	Red		Green		Unit
			Typ.	Max.	Typ.	Max.	
Forward voltage	V_F	I_F =10mA	2.0	2.8	2.1	2.8	V
Reverse current	I_R	V_R =3V	-	100	-	100	μA
Peak wavelength	λ_p	I_F=10mA	650	-	563	-	nm
Spectral line halfwidth	$\Delta\lambda$	I_F=10mA	40	-	40	-	nm

◎ The products are not radiations resistant.

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●**Luminous intensity**

Parameter	λ_p	Type	Min.	Typ.	Max.	Unit
Red	650	LF-3011VA	3.6	10	-	mcd
		LF-3011VK				
Green	563	LF-3011MA	3.6	10	-	mcd
		LF-3011MK				

◎ Condition I_F=10mA

●**Iv classification**

Parameter	Type	Item	Iv classification	Unit
Red	LF-3011VA LF-3011VK	“ K ”	3.6 to 7.1	mcd
		“ L ”	5.6 to 11	mcd
		“ M ”	9.0 to 18	mcd
		“ N ”	14 to 28	mcd
		“ P ”	22 to (45)	mcd
Green	LF-3011MA LF-3011MK	“ K ”	3.6 to 7.1	mcd
		“ L ”	5.6 to 11	mcd
		“ M ”	9.0 to 18	mcd
		“ N ”	14 to 28	mcd
		“ P ”	22 to (45)	mcd

◎ Condition I_F=10mA

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●Electrical and optical characteristics curves

Fig.1 Forward Current vs. Forward Voltage

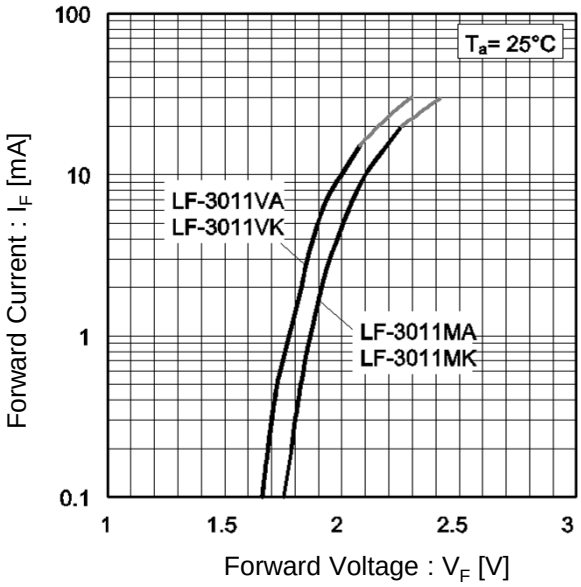


Fig.2 Relative Luminous Intensity vs. Forward Current

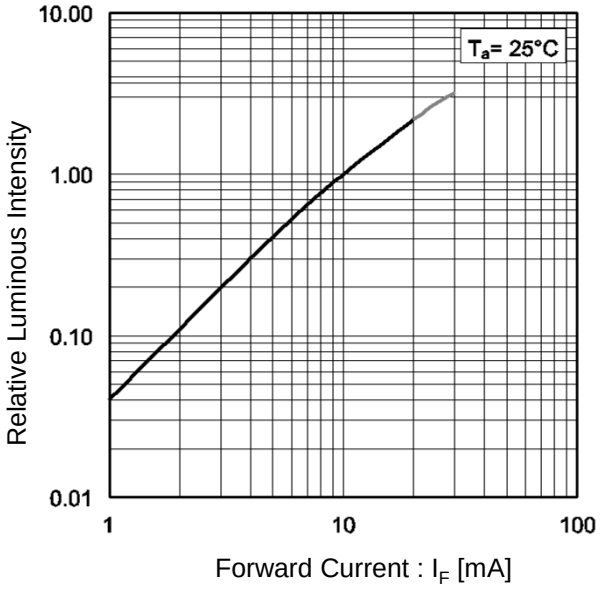


Fig.3 Relative Luminous Intensity vs. Case Temperature

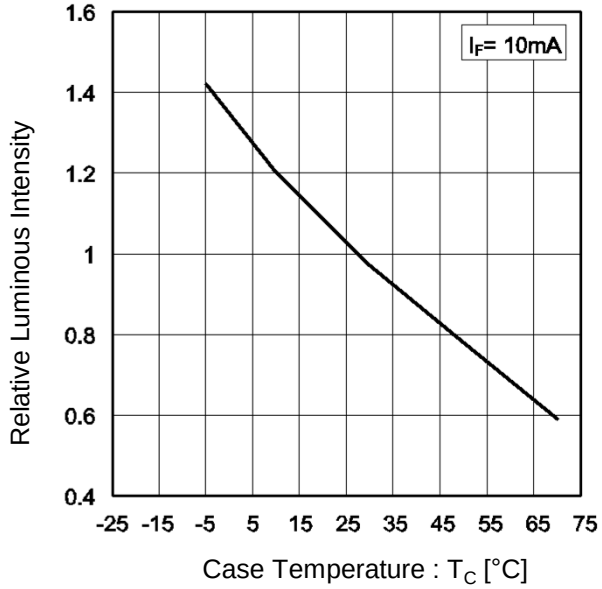
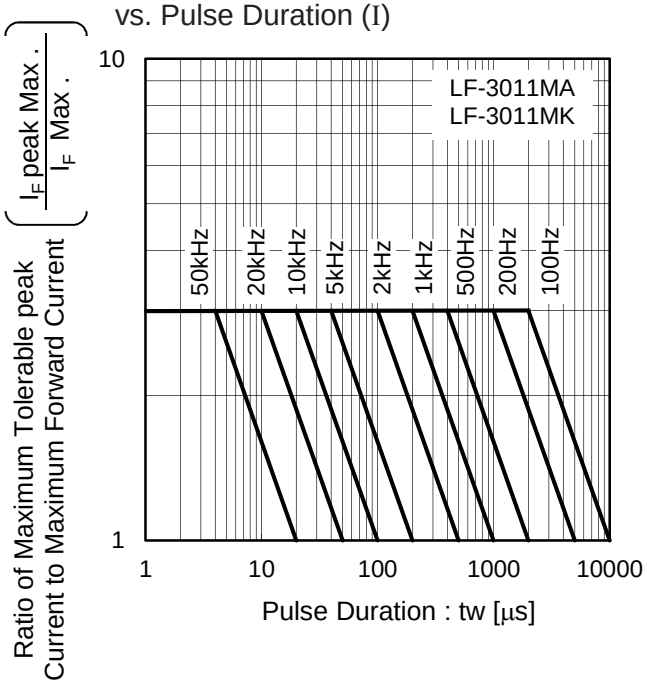


Fig.4 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration (I)



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●Electrical and optical characteristics curves

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

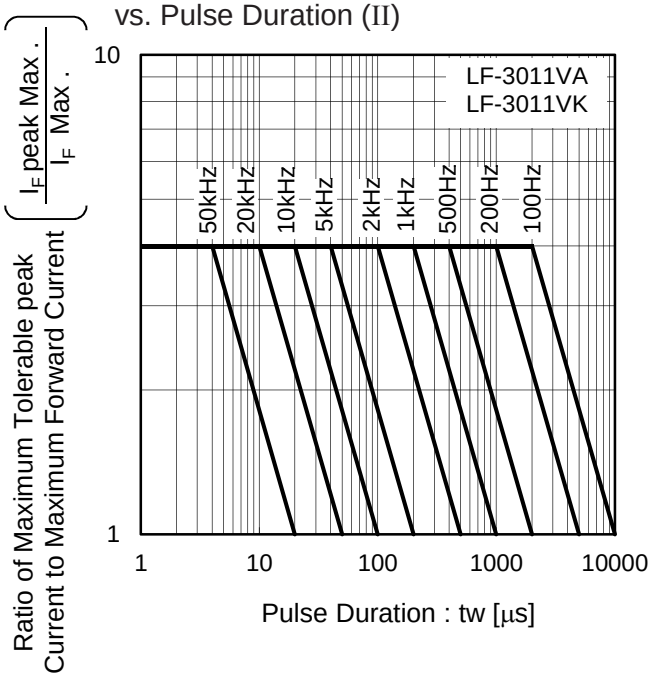
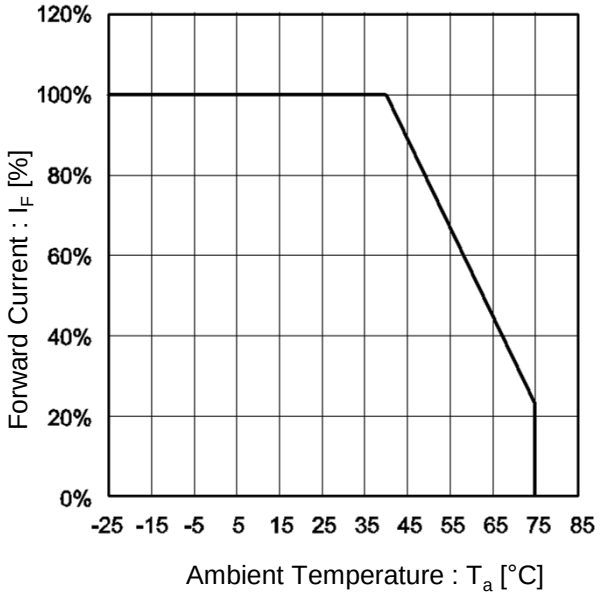


Fig.6 Derating



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