

By Category PDF

Category LED Displays

Opto Devices

# LED Displays

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# LED Displays

High luminous intensity LED Numeric Displays	P.269	LED Numeric Displays	P.270
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## Good point of High luminous intensity LED Numeric Displays series

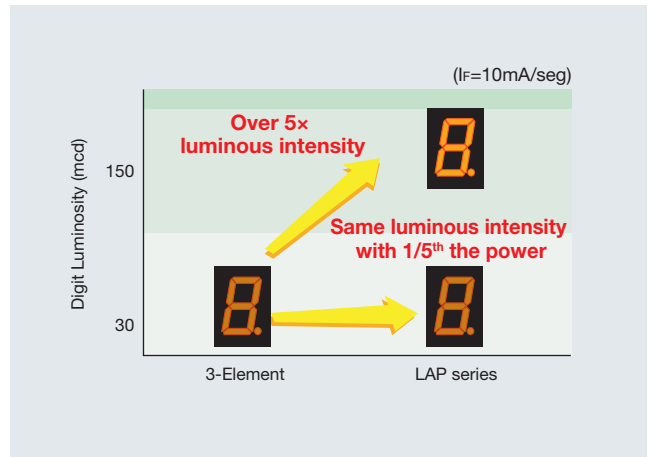
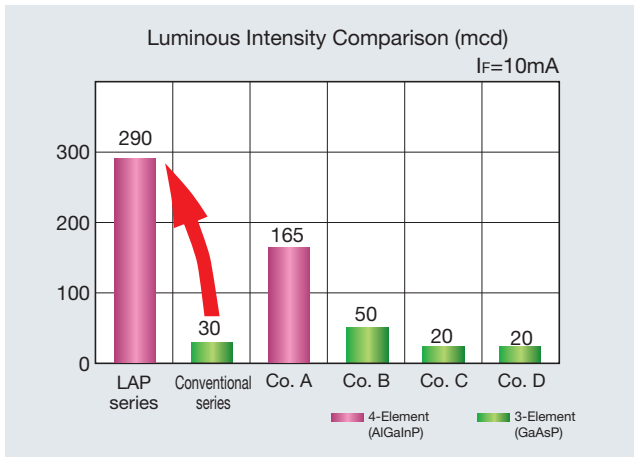
All-around type that High luminous intensity, Low Power Consumption and High Reliability

### High luminous intensity

The brighter 4-element construction significantly increases luminosity compared with conventional numeric displays (orange emission ratio).

### Low Power

Achieves equivalent luminous intensity with 5x less current, contributing to greater energy savings.



## High luminous intensity LED Numeric Displays

High luminous intensity, low power consumption, and high reliability.

Single Digit LED Numeric Displays		Shape	Part No.	Emitting Color	Absolute Maximum Ratings ( $T_s=25^\circ\text{C}$ )					Electrical and Optical Characteristics ( $T_s=25^\circ\text{C}$ )									
Power Dissipation $P_D$ (mW)	Forward Current $I_F$ (mA)				Peak Forward Current $I_{FP}$ (mA)	Reverse Voltage $V_R$ (V)	Operating Temperature $T_{opr}$ ( $^\circ\text{C}$ )	Storage Temperature $T_{stg}$ ( $^\circ\text{C}$ )	Forward Voltage $V_F$		Reverse Current $I_R$		Light Wavelength Peak Half-wave		Luminous Intensity/Digit $I_v$				
									Typ (V)	$I_F$ (mA)	Max ( $\mu\text{A}$ )	$V_R$ (V)	$\lambda_p$ (nm)	$\Delta\lambda$ (nm)	$I_F$ (mA)	Min (mcd)	Typ (mcd)	$I_F$ (mA)	
Character Height: 8mm External Dimensions: (7x11)	LAP-301VB/VL	Red	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	650	20	10	14	36	10	
	LAP-301MB/ML	Green	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	572	20	10	36	100	10	
	LAP-301DB/DL	Orange	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	605	20	10	56	250	10	
Character Height: 10.16mm External Dimensions: (9.6x13)	LAP-401VD/VN	Red	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	650	20	10	14	36	10	
	LAP-401MD/MN	Green	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	572	20	10	36	100	10	
	LAP-401DD/DN	Orange	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	605	20	10	56	250	10	
Character Height: 14.6mm External Dimensions: (12.5x19)	LAP-601VB/VL	Red	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	650	20	10	14	36	10	
	LAP-601MB/ML	Green	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	572	20	10	36	100	10	
	LAP-601DB/DL	Orange	448	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	605	20	10	56	250	10	





Note: \* $I_{FP}$  measured under duty $\leq$ 1/5, Pulse width $\leq$ 1ms

Two Digit LED Numeric Displays		Shape	Part No.	Emitting Color	Absolute Maximum Ratings ( $T_s=25^\circ\text{C}$ )					Electrical and Optical Characteristics ( $T_s=25^\circ\text{C}$ )									
Power Dissipation $P_D$ (mW)	Forward Current $I_F$ (mA)				Peak Forward Current $I_{FP}$ (mA)	Reverse Voltage $V_R$ (V)	Operating Temperature $T_{opr}$ ( $^\circ\text{C}$ )	Storage Temperature $T_{stg}$ ( $^\circ\text{C}$ )	Forward Voltage $V_F$		Reverse Current $I_R$		Light Wavelength Peak Half-wave		Luminous Intensity/Digit $I_v$				
									Typ (V)	$I_F$ (mA)	Max ( $\mu\text{A}$ )	$V_R$ (V)	$\lambda_p$ (nm)	$\Delta\lambda$ (nm)	$I_F$ (mA)	Min (mcd)	Typ (mcd)	$I_F$ (mA)	
Character Height: 14.3mm External Dimensions: (25x19)	LBP-602VA2/VK2	Red	896	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	650	20	10	14	36	10	
	LBP-602MA2/MK2	Green	896	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	572	20	10	36	100	10	
	LBP-602DA2/DK2	Orange	896	20	60	5	-25 to +75	-30 to +85	1.9	10	100	3	605	20	10	56	250	10	

Note: \* $I_{FP}$  measured under duty $\leq$ 1/5, Pulse width $\leq$ 1ms




# LED Numeric Displays

These single digit numeric displays are 8 to 14.6mm in height and available in a range of colors.


Single Digit LED Numeric Displays																		
Shape	Part No.	Emitting Color	Absolute Maximum Ratings (T <sub>a</sub> =25°C)				Absolute Maximum Ratings		Electrical and Optical Characteristics (T <sub>a</sub> =25°C)									
			Power Dissipation P <sub>0</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>Fp</sub> * (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stg</sub> (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength			Luminous Intensity/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>p</sub> Typ (nm)	Δλ Typ (nm)	I <sub>F</sub> (mA)	Min (mcd)	Typ (mcd)	I <sub>F</sub> (mA)
 Character Height: 8mm External Dimensions: (7x11)	LA-301VB/VL	Red	320	15	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	3.6	10	10
	LA-301MB/ML	Green	480	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	3.6	10	10
	LA-301AB/AL	High luminous intensity Red	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	626	18	20	36	90	10
	LA-301EB/EL	High luminous intensity Orange	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	610	17	20	36	90	10
 Character Height: 10.16mm External Dimensions: (9.6x13)	LA-401VD/VN	Red	320	15	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10
	LA-401MD/MN	Green	480	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	5.6	16	10
	LA-401AD/AN	High luminous intensity Red	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	626	18	20	36	90	10
	LA-401ED/EN	High luminous intensity Orange	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	610	17	20	36	90	10
 Character Height: 13mm External Dimensions: (12.5x17.5)	LA-501VD/VN	Red	480	20	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10
	LA-501MD/MN	Green	480	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	5.6	16	10
 Character Height: 14.6mm External Dimensions: (12.5x19)	LA-601VB/VL	Red	480	20	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	14	10
	LA-601MB/ML	Green	480	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	9.0	22	10
	LA-601AB/AL	High luminous intensity Red	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	626	18	20	36	90	10
	LA-601EB/EL	High luminous intensity Orange	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	610	17	20	36	90	10

Note1: \*I<sub>Fp</sub> measured under duty≤1/5, Pulse width≤1ms, High luminous intensity under duty≤1/10, Pulse width≤0.1 ms

These two digit numeric displays are 10.16 to 14.3mm in height and available in a range of colors.

Two Digit LED Numeric Displays																		
Shape	Part No.	Emitting Color	Absolute Maximum Ratings (T <sub>a</sub> =25°C)				Absolute Maximum Ratings		Electrical and Optical Characteristics (T <sub>a</sub> =25°C)									
			Power Dissipation P <sub>0</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>Fp</sub> * (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stg</sub> (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength			Luminous Intensity/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>p</sub> Typ (nm)	Δλ Typ (nm)	I <sub>F</sub> (mA)	Min (mcd)	Typ (mcd)	I <sub>F</sub> (mA)
 Character Height: 10.16mm External Dimensions: (24x18)	LB-402VD/VN	Red	640	15	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10
	LB-402MD/MN	Green	960	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	9.0	25	10
 Character Height: 13mm External Dimensions: (25x17.5)	LB-502VD/VN	Red	960	20	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10
	LB-502MD/MN	Green	960	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	9.0	25	10
 Character Height: 14.3mm External Dimensions: (25x19)	LB-602VA2/VK2	Red	960	20	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10
	LB-602MA2/MK2	Green	960	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	9.0	25	10
	LB-602AA2/AK2	High luminous intensity Red	1,040	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	626	18	20	36	90	10
	LB-602EA2/EK2	High luminous intensity Orange	1,040	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	610	17	20	36	90	10


Note: \*I<sub>Fp</sub> measured under duty≤1/5, Pulse width≤1ms, High luminous intensity under duty≤1/10, Pulse width≤0.1 ms

Three Digit LED Numeric Display																		
Shape	Part No.	Emitting Color	Absolute Maximum Ratings (T <sub>a</sub> =25°C)				Absolute Maximum Ratings		Electrical and Optical Characteristics (T <sub>a</sub> =25°C)									
			Power Dissipation P <sub>0</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>Fp</sub> * (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stg</sub> (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength			Luminous Intensity/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>p</sub> Typ (nm)	Δλ Typ (nm)	I <sub>F</sub> (mA)	Min (mcd)	Typ (mcd)	I <sub>F</sub> (mA)
 Character Height: 14.3mm External Dimensions: (37.5x18)	LB-603VF/VP	Red	960	15	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	5.6	16	10

Note: \*I<sub>Fp</sub> measured under duty≤1/5, Pulse width≤1ms

# Surface Mount LED Numeric Displays

ROHM's LED numeric displays are compatible with automatic reflow processes.

Single Digit LED Numeric Displays																		
Shape	Part No.	Emitting Color	Absolute Maximum Ratings (T <sub>a</sub> =25°C)				Absolute Maximum Ratings		Electrical and Optical Characteristics (T <sub>a</sub> =25°C)									
			Power Dissipation P <sub>0</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>Fp</sub> * (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stg</sub> (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength			Luminous Intensity/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>p</sub> Typ (nm)	Δλ Typ (nm)	I <sub>F</sub> (mA)	Min (mcd)	Typ (mcd)	I <sub>F</sub> (mA)
 Character Height: 8mm External Dimensions: (6.8x11)	LF-3011VA/VK	Red	320	15	60	5	-25 to +75	-30 to +85	2.0	10	100	3	650	40	10	3.6	10	10
	LF-3011MA/MK	Green	480	20	60	5	-25 to +75	-30 to +85	2.1	10	100	3	563	40	10	3.6	10	10

Note: \*I<sub>Fp</sub> measured under duty≤1/5, Pulse width≤1ms