





# High Brightness LED Numeric Displays


High brightness, low power consumption, and high reliability.

High Brightness 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>o</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 Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength Half-wave			Brightness/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>Peak</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)	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
 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<sub>FP</sub> measured under duty≤1/5, Pulse width≤1ms






# LED Numeric Displays

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

Single Digit LED Numeric Displays (Surface Mount type)																		
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>o</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 Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength Half-wave			Brightness/Digit I <sub>v</sub>		
									Typ (V)	I <sub>F</sub> (mA)	Max (μA)	V <sub>R</sub> (V)	λ <sub>Peak</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

These single digit numeric displays are 8 to 25.4mm 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>D</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 Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength Peak Half-wave			Brightness/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 <sub>1/2</sub> -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 Brightness 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 Brightness 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 Brightness 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 Brightness 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 Brightness 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 Brightness Orange	520	25	50	5	-25 to +75	-30 to +85	2.05	20	100	3	610	17	20	36	90	10
 Character Height: 25.4mm External Dimensions: (24x34)	LA-101VA/VK	Red	640	15	60	5	-25 to +75	-30 to +85	4.0	10	100	3	650	40	10	3.6	10	10
	LA-101MA/MK	Green	640	20	60	5	-25 to +75	-30 to +85	4.2	10	100	3	563	40	10	5.6	16	10

Note1: \*I<sub>FP</sub> measured under duty≤1/5, Pulse width≤1ms, High Brightness and Blue I<sub>FP</sub> measured under duty≤1/10, Pulse width≤0.1 ms Note2: LA-101 series: order-based production.

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>D</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 Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength Peak Half-wave			Brightness/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 <sub>1/2</sub> -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 Brightness 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 Brightness 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 Brightness and Blue I<sub>FP</sub> measured 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>D</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 Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V <sub>F</sub>		Reverse Current I <sub>R</sub>		Light Wavelength Peak Half-wave			Brightness/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 <sub>1/2</sub> -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