

# Surface Mount Type Numeric LED

## General Description

Sharp's GL8D03M series, GL8D04M series, GL8D56M series are 1-digit, thin package surface mount type numeric LEDs. (character height: 8.0/10.16/14.22 mm). It is unnecessary to adjust the mounting height because the thickness of each series is the same. They are suited for measuring equipment and various thin type display systems.



GL9D04M

## Model Line-up

Type	Character height (mm)	Radiation color Common	[D]	[E]	Outline Dimensions	
			Red	Yellow-green	Page	Figure
Mold type	8.0	Anode	GL9D03M	GL9E03M	180	1
		Cathode	GL8D03M	GL8E03M		
	10.16	Anode	GL9D04M	GL9E04M	180	2
		Cathode	GL8D04M	GL8E04M		
	14.22	Anode	GL9D56M	GL9E56M	180	3
		Cathode	GL8D56M	GL8E56M		

## Absolute Maximum Ratings (Figures shown below are values per segment.)

(Ta=25°C)

Model No.	Forward current I <sub>F</sub> (mA)	Peak forward current*1 I <sub>FM</sub> (mA)	Derating factor		Reverse voltage V <sub>R</sub> (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
			DC (mA/°C)	Pulse (mA/°C)			
GL9E03M/GL8E03M	Yellow-green	15	50	1.91	6.36	-30 to +70	-40 to +80
GL9D03M/GL8D03M	Red	20	50	2.54	6.36		
GL9E04M/GL8E04M	Yellow-green	15	50	1.91	6.36	-30 to +70	-40 to +80
GL9D04M/GL8D04M	Red	20	50	2.54	6.36		
GL9E56M/GL8E56M	Yellow-green	15	50	1.91	6.36	-30 to +70	-40 to +80
GL9D56M/GL8D56M	Red	20	50	2.54	6.36		

\*1 Duty ratio=1/10, pulse width=0.1ms

## Electro-optical Characteristics (Figures shown below are values per segment.)

(Ta=25°C)

Model No.	Forward current V <sub>F</sub> (V)	Luminous intensity I <sub>v</sub> (mcd)	Peak emission wavelength λ <sub>p</sub> (nm)	Spectrum radiation bandwidth Δλ (nm)	Reverse current			
					I <sub>F</sub> (mA)	I <sub>R</sub> (μA)		
	TYP.	MAX.	TYP.	TYP.	TYP.	MAX.	V <sub>R</sub> (V)	
GL9E03M/GL8E03M	Yellow-green	2.0	2.5	2.5	565	30	10	4
GL9D03M/GL8D03M	Red	1.85	2.3	2.3	635	35	10	4
GL9E04M/GL8E04M	Yellow-green	2.0	2.5	3.0	565	30	10	4
GL9D04M/GL8D04M	Red	1.85	2.3	3.0	635	35	10	4
GL9E56M/GL8E56M	Yellow-green	2.0	2.5	4.0	565	30	10	4
GL9D56M/GL8D56M	Red	1.85	2.3	4.0	635	35	10	4