

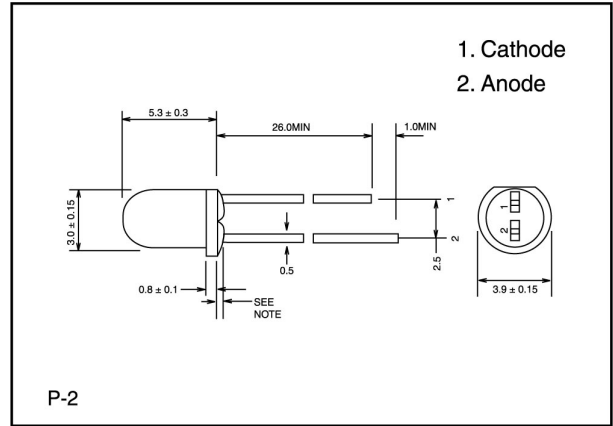


MLL-30□31 SERIES

LED Lamps TECHNICAL SPECIFICATION

Features:

- Round type LED lamps (3.0mm)
- Lens Color: Water Clear
- Lead spacing is measured where the leads emerge from the package
- Protruded resin under flange 1.5mm (0.59") max.



ABSOLUTE MAXIMUM RATINGS: (Ta = 25°C)

Characteristic	Symbols	Red	Bright Red	Hi-Eff Red	Orange	Yellow	Green	Unit
Forward Direct Current	I _{FM}	25	20	25	25	25	25	mA
Reverse Voltage (I _R = 10μA)	V _R	5.0	5.0	5.0	5.0	5.0	5.0	V
Peak Forward Current (Duty 1/10,cycle 0.1ms pulse width)	I _F (Peak)	200	60	120	120	80	120	mA
Operating Temperature Range	T _{OPR}	(-40 to +80)						°C
Storage Temperature	T _{STG}	(-40 to +100)						°C
Lead Soldering Temperature (1.6mm (1/16 inch) from body)		260° for 5 seconds						

ELECTRICAL AND OPTICAL CHARACTERISTIC(Ta = 25°C)

Characteristic	Symbol	Condition		Red	Bright Red	Hi-Eff Red	Orange	Yellow	Green	Unit
				MLL-30131	MLL-30231	MLL-30331	MLL-30431	MLL-30531	MLL-30431	
Forward Voltage	V _F	I _F = 20mA	TYP	1.7	2.2	2	2	2.1	2.2	V
			Max.	2.1	2.5	2.4	2.4	2.5	2.5	
Luminous Intensity	I _V	I _F = 20mA	TYP	2.0	3.2	12.0	12.0	9.0	12.0	mcd
			Max.	1.0	1.6	6.0	6.0	4.5	6.0	
Peak Emission Wavelength	λ _p	I _F = 20mA		660	700	640	635	585	565	nm
Spectrum Radiation Bandwidth	Δ λ	I _F = 20mA		30	90	30	30	35	30	nm
Reverse Current	I _R	V _R = 5V	TYP	0.1	0.1	0.1	0.1	0.1	0.1	μA
			Max.	50	50	50	50	50	50	
Viewing Half Angle	θ 1/2	I _F = 20mA		20°	20°	20°	20°	20°	20°	deg