

# L-945MYC-85D

HIGH POWER LED LAMP -WATER CLEAR

- ❖ HIGH FLUX OUTPUT
- ❖ 4 LEADED HIGH POWER
- ❖ LOW THERMAL RESISTANCE
- ❖ HIGH CURRENT OPERATION

## Benefits

- Fewer LEDs Required
- Lower Lighting System Cost

## Feature

- High Luminous Intensity
- High Current Operation
- Low Profile & Low Thermal Resistance
- Packaged in Tubes for Use with Automatic Pick and Place Equipment
- Meets JIS、SAE、ECE Automotive Color Requirements

## Applications

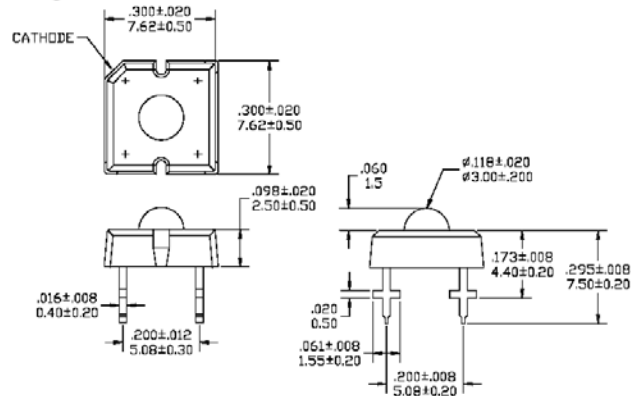
- Commercial Outdoor Sign Board
- Automotive Exterior light
- Traffic Signal light

## Description

The revolutionary package is designed for high current operation and high flux output applications and for brighter light with the fewer number of LEDs. The better thermal management characteristics will solve the high temperature produced by the higher current operation.

The low profile package can be easily coupled to reflectors or lenses to efficiently distribute light and provide the desired illuminated appearance. The world's brightest red, red-orange and amber LED are fabricated by the technology of AlInGaP material family, which allow designers to match the color of popular lighting applications, such as automotive tail, stop, and turn signal lamps, and electronic signs. The color specifications meet SAE/ECE/JIS automotive requirements.

## Package Dimension



\*Tolerance : ± 0.01 inch  
0.25 mm

## Absolute Maximum Ratings at Ta = 25°C

Parameter	Max.	Unit
Power Dissipation	224	mW
Reverse Voltage (Ir=100 μA)	10	V
DC Forward Current	70	mA
LED Junction temperature	125	°C
Operating Temperature Range	- 40 to + 100	°C
Storage Temperature Range	- 55 to + 100	°C

Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds.

## Electrical / Optical Characteristics and Curves at Ta = 25°C

Parameter	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	IF = 70 mA		2.6	3.2	V
Reverse Breakdown Voltage	Ir = 100 μA	10	20		V
Peak Emission Wavelength	IF = 70 mA		593		nm
Dominant Wavelength	IF = 70 mA		590		nm
Luminous Intensity	IF = 70 mA	5800	16000		mcd.
Viewing Angle	IF = 70 mA		85		deg.

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Electrical Characteristics at Ta = 25°C

Symbol	I <sub>v</sub>		Φ <sub>v</sub>		V <sub>F</sub>		λ <sub>D</sub>	
Parameter	Luminous Intensity		Luminous Flux		Forward Voltage		Dominant Wavelength	
Condition	IF = 70mA		IF = 70mA		IF = 70mA		IF = 70mA	
Unit	mcd		mlm		v		nm	
Binning	Grade	Range	Grade	Range	Grade	Range	Grade	Range
	BIN 1	5800-8100	BIN 1	1100-1600	H	2.2-2.3	T1	582.0-583.5
	BIN 2	8100-11300	BIN 2	1600-2300	I	2.3-2.4	T2	583.5-585.0
	BIN 3	11300-15800	BIN 3	2300-3200	J	2.4-2.5	T3	585.0-586.5
	BIN 4	15800-22100	BIN 4	3200-4500	K	2.5-2.6	T4	586.5-588.0
	BIN 5	22100-31000	BIN 5	4500-6300	L	2.6-2.7	T5	588.0-590.0
	BIN 6	31000-43500	BIN 6	6300-8800	N	2.7-2.8	T6	589.0-592.0
					O	2.8-2.9	T7	592.0-594.0
					P	2.9-3.0		
					Q	3.0-3.1		
				R	3.1-3.2			

Intensity / Flux: Tolerance of minimum and maximum = ± 15%

V<sub>f</sub>: Tolerance of minimum and maximum = ± 0.05v

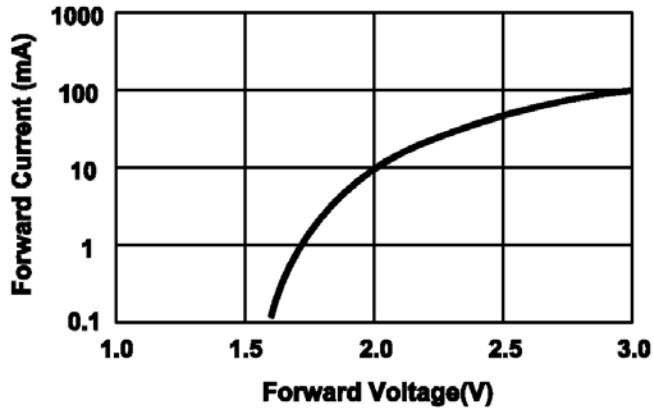
Wavelength: Tolerance of minimum and maximum = ± 2nm

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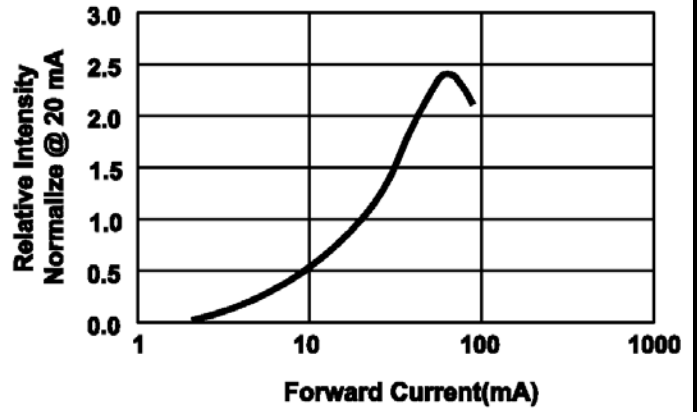
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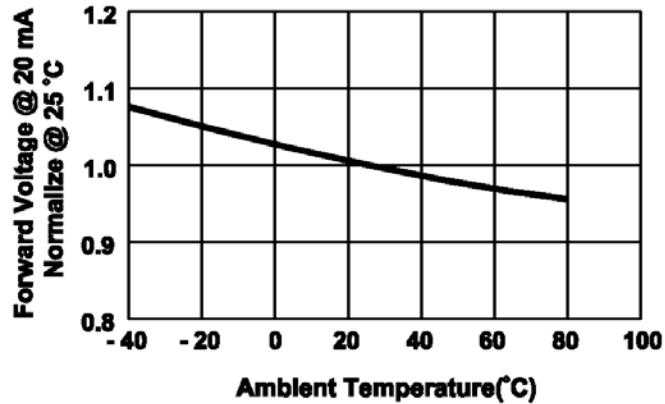
**Fig 1. Forward Current vs. Forward Voltage**



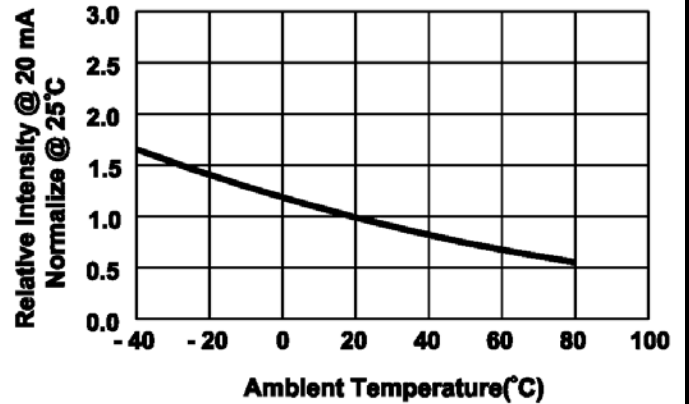
**Fig 2. Relative Intensity vs. Forward Current**



**Fig 3. Forward Voltage vs. Temperature**



**Fig 4. Relative Intensity vs. Temperature**

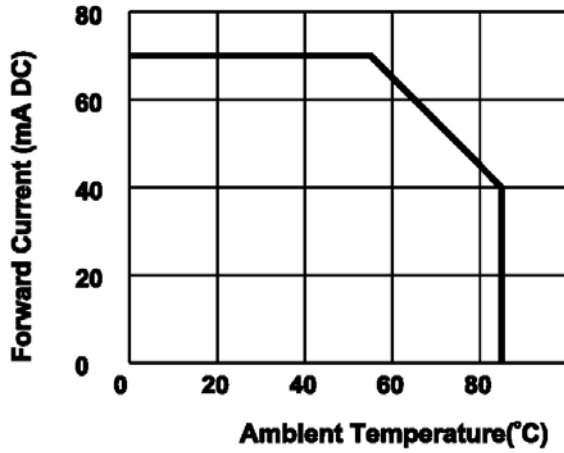


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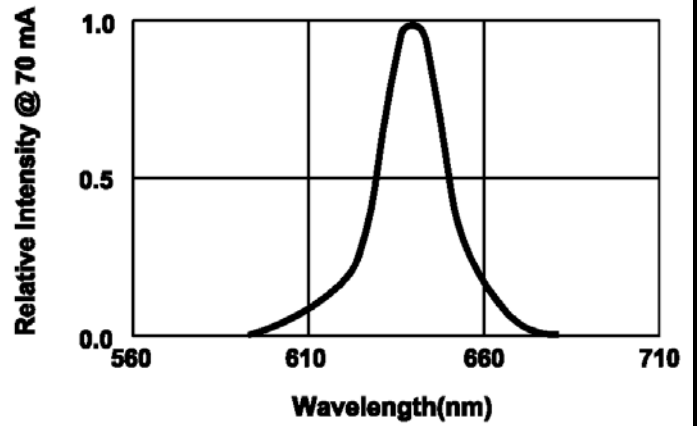
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**Fig 5. Relative Intensity vs. Wavelength**



**Fig 6. Radiation Diagram**



**Fig 7. Relative Luminous Intensity vs. Off Axis Angle.**

