1N5912

(Formerly MLED850)

VISIBLE YELLOW LIGHT-EMITTING DIODE

. . . ideally suited for panel mount indicator applications in panels up to 0.125 inches thick.

- JEDEC Registered for Guaranteed Mechanical and Electrical Conformity.
- High Luminous Intensity
- Economical Plastic Package
- Solid State Reliability
- Wide Viewing Angle – 90°
- Yellow Diffusing Lens

PANEL MOUNT
LIGHT EMITTING DIODE
VISIBLE YELLOW
PN GALLIUM PHOSPHIDE

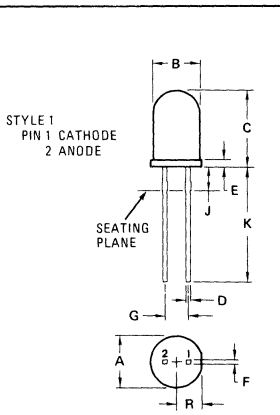
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	4.0	Volts
*Forward Current – T_A = 25°C	I_F	35	mA
*Peak Pulse Current (Pulse Width = 1.0 μs, f = 10 kHz)	i_F	1000	mA
*Total Power Dissipation @ T_A = 25°C Derate above 25°C	P_D(1)	125 1.67	mW mW/°C
*Operating and Storage Junction Temperature Range	T_A,T_{stg}	-40 to +100	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$(1)	600	°C/W
*Soldering Temperature – 1/16" from Case for 10 Seconds	–	240	°C

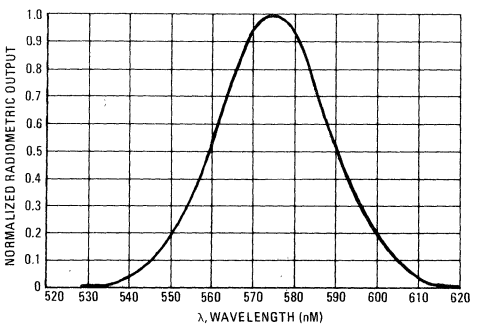
(1) Mounted in metal panel
*Indicates JEDEC Registered Data.



DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
A	5.72	5.97	0.225	0.235
B	4.95	5.21	0.195	0.205
C	8.38	8.89	0.330	0.350
D	0.41	0.51	0.016	0.020
E	0.64	0.89	0.025	0.035
F	0.30	0.46	0.012	0.018
G	2.44	2.64	0.096	0.104
J	2.44	2.54	0.096	0.100
K	12.57	13.21	0.495	0.520
R	2.54	2.79	0.100	0.110

CASE 279-01

FIGURE 1 – RELATIVE INTENSITY versus WAVELENGTH



***ELECTRICAL CHARACTERISTICS** (T_A = 25°C unless otherwise noted.)

Characteristic	Figure No.	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I_R = 100 μA)	–	BV_R	4.0	–	–	Volts
Forward Voltage (I_F = 25 mA)	2	V_F	–	2.1	3.0	Volts

OPTICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Figure No.	Symbol	Min	Typ	Max	Unit
*Axial Luminous Intensity (1) (I_F = 25 mA)	3,4,5	I_o	0.3	0.8	–	mcd
Effective Luminous Area	–	–	–	0.03	–	Square-Inch Circle
Peak Emission Wavelength	–	λp	–	575	–	nM
Spectral Line Half Width	–	Δλ	–	30	–	nM

*Indicates JEDEC Registered Data.

(1) Axial Luminous Intensity (I_o) is measured using an International Commission on Illumination corrected Photometer and a measurement solid angle of 0.003 Steradian.

TYPICAL CHARACTERISTICS

FIGURE 2 – FORWARD CHARACTERISTICS

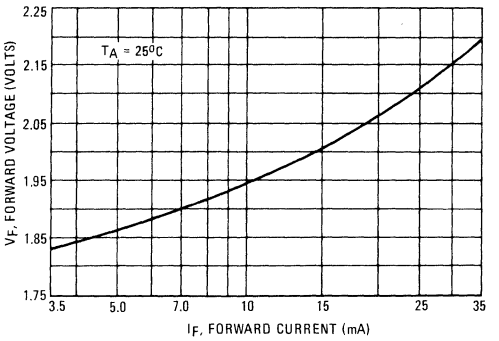


FIGURE 3 – AXIAL LUMINOUS INTENSITY versus JUNCTION TEMPERATURE

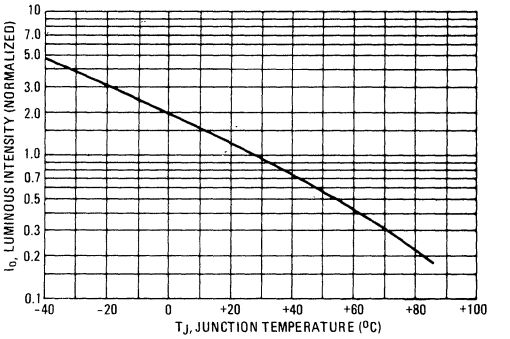


FIGURE 4 – AXIAL LUMINOUS INTENSITY versus FORWARD CURRENT

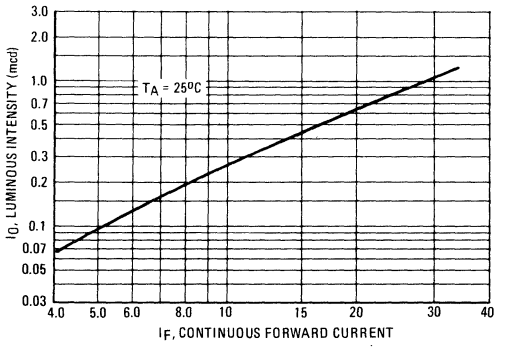


FIGURE 5 – SPATIAL RADIATION PATTERN