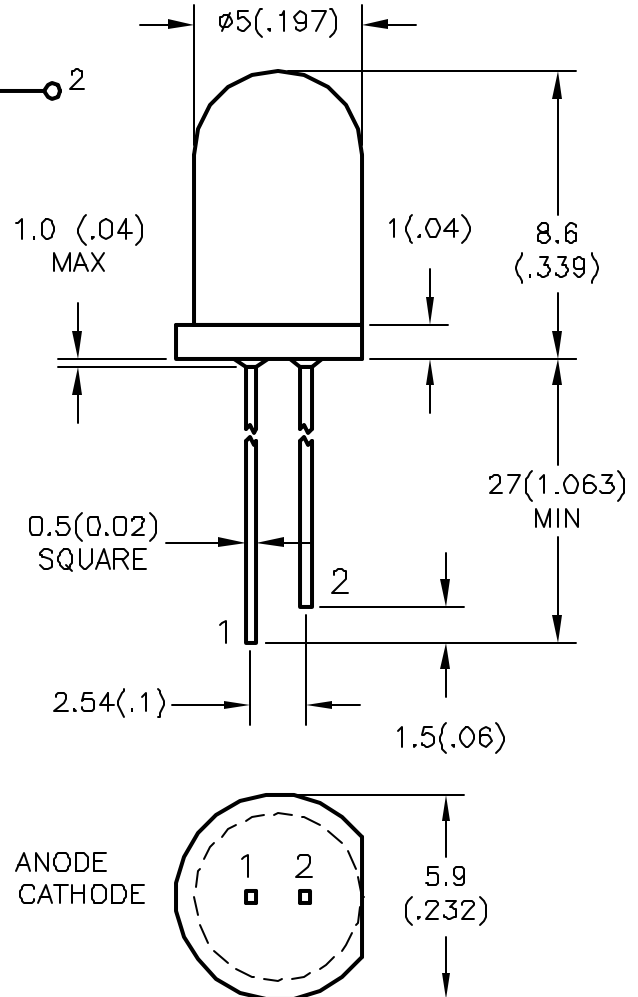
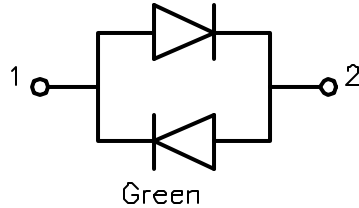


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REVISIONS			DDC. NO. SPC-F004 * Effective: 12/21/98 * DCP No: 680						
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE	
266	A	RELEASED	HYD	7/28/00	JC	10/19/00	DJC	10/19/00	

PACKAGE DIMENSIONS

High Efficiency Red



FEATURES

1. LOW POWER CONSUMPTION.
2. IC COMPATIBLE.
3. LONG LIFE AND RELIABLE.

DESCRIPTION

1. High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.
2. The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

Note:

Lead spacing is measured where the leads emerge from the package.

DICE	LENS TYPE	Iv (mcd) @ 20 mA		Viewing Angle 2θ _{1/2}
		MIN	MAX	
High Efficiency Red (GaAsP/GaP)	White Diffused	8	40	60°
Green (GaP)	White Diffused	5	20	60°

Notes:

θ_{1/2} is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

SPC-F004.DWG

DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

multicomp

Tolerance Unless Otherwise Specified .XX ±0.25(0.01")	DRAWN BY:	DATE:	DRAWING TITLE:			
	HISHAM QDISH	7/28/00	BI-COLOR LED 5mm, RED-GREEN			
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	JOHN COLE	10/19/00	A	MCL-57EGW	92N5366.DWG	A
APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: MM (INCHES)		
DANIEL CAREY	10/19/00			SHEET: 1 OF 3		

Electrical/Optical Characteristics at $T_A=25^\circ\text{C}$

SYMBOL	PARAMETER	DEVICE	TYP.	MAX.	UNITS	TEST CONDITIONS
λ_{peak}	Peak Wavelength	High Efficiency Red	625		nm	IF = 20mA
		Green	565			
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red	45		nm	IF = 20mA
		Green	30			
C	Capacitance	High Efficiency Red	12		pF	VF=0V; f=1MHz
		Green	45			
V_F	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF = 20mA
		Green	2.2	2.5		
I_R	Reverse Current	All	10		μA	VR=5V

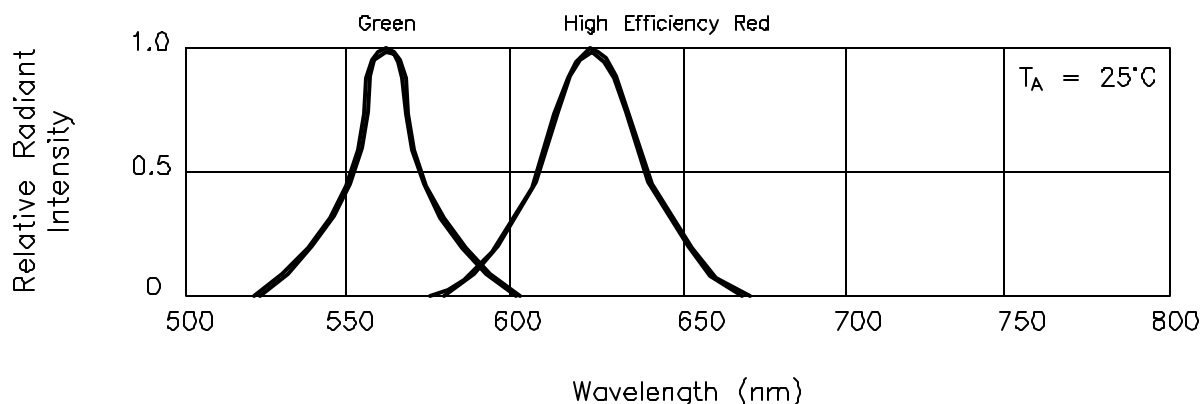
Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Color	Power dissipation (mW)	DC Forward Current (mA)	Peak Forward Current [1] (mA)	Reverse Voltage (V)	Operating/Storage Temperature ($^\circ\text{C}$)	Lead Soldering Temperature [2] ($^\circ\text{C}$)
High Efficiency Red	105	30	150	5	$-40^\circ\text{C} \sim +85^\circ\text{C}$	260 $^\circ\text{C}$ for 5 sec
Green	105	25	150	5	$-40^\circ\text{C} \sim +85^\circ\text{C}$	260 $^\circ\text{C}$ for 5 sec

Notes:

- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.

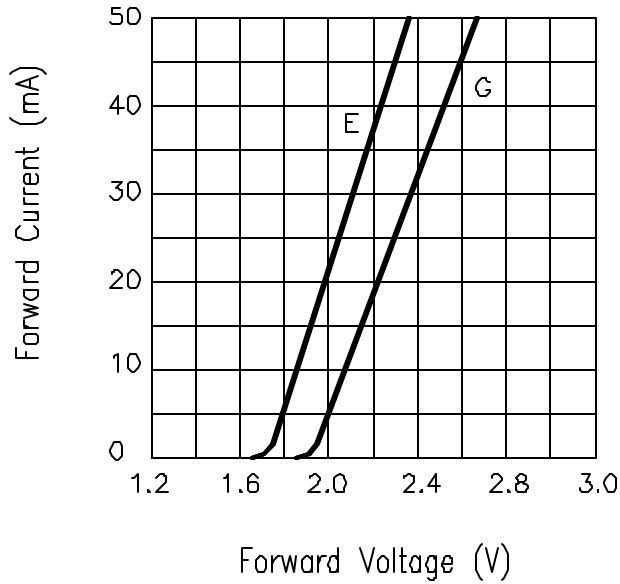
RELATIVE INTENSITY Vs. WAVELENGTH



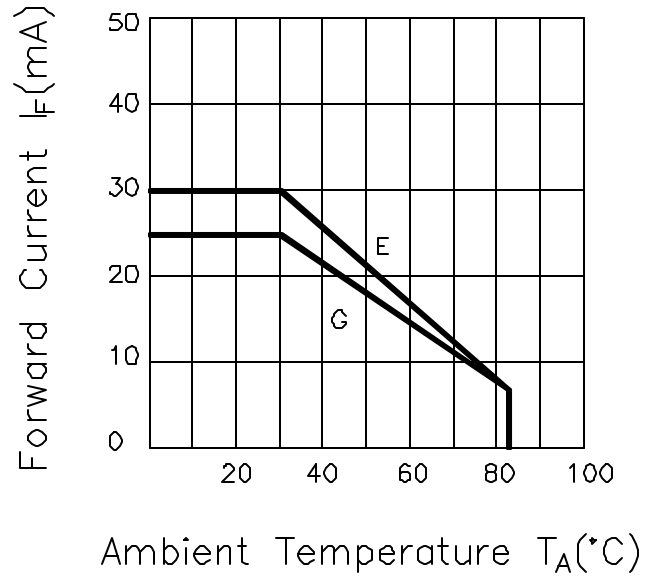
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MCL-57EGW	92N5366.DWG	A
SCALE: NTS		U.O.M.: MM (INCHES)	SHEET: 2 OF 3

NOTES

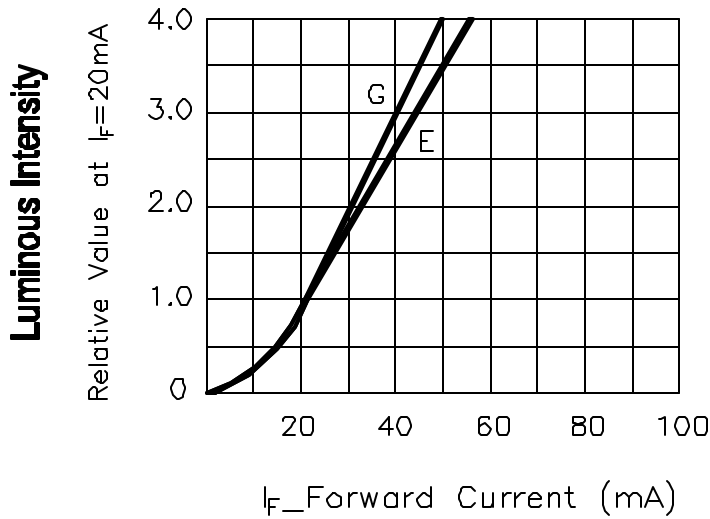
1. E = High Efficiency Red LED.
2. G = Green LED.



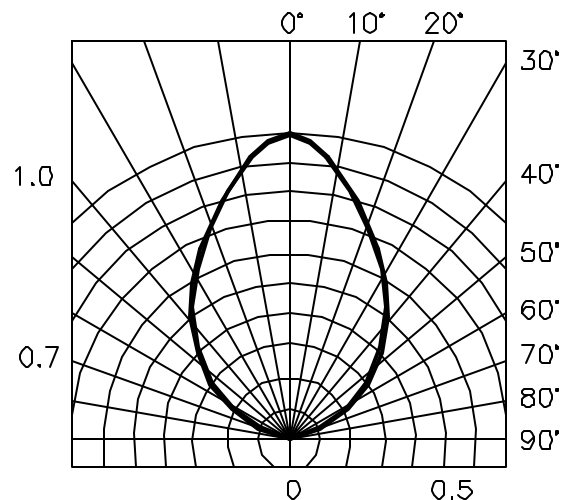
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION

SIZE A	DWG. NO. MCL-57EGW	ELECTRONIC FILE 92N5366.DWG	REV A
SCALE: NTS		U.O.M.: MM [INCHES]	SHEET: 3 OF 3