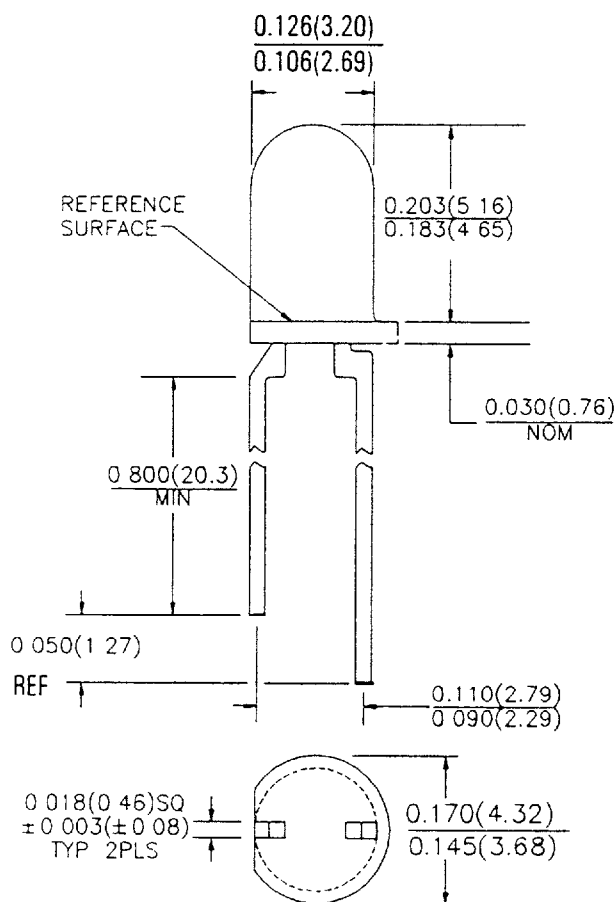


**DOUBLE HETEROJUNCTION AlGaAs RED MV5966  
HIGH EFFICIENCY RED MV5766  
HIGH EFFICIENCY GREEN MV5466  
YELLOW MV5366**

**PACKAGE DIMENSIONS**



**DESCRIPTION**

High intensity and narrow viewing angle are the outstanding features of the MV5966 high profile T-1 LED lamps. The high efficiency red and yellow devices are made with gallium arsenide phosphide on gallium phosphide. The high efficiency green is made with gallium phosphide on gallium phosphide. The AlGaAs red LED material is based on double heterojunction (DH) AlGaAs/GaAs technology. All are encapsulated in epoxy packages and have a clear lens with pale tint.

**FEATURES**

- High intensity
- High profile package
- Clear lens with pale tint
- 100 mil lead spacing
- Narrow viewing angle
- Versatile mounting on PC board or panel
- Long life—solid state reliability
- Low power requirements
- Compact, rugged, lightweight
- T-1 diameter
- Excellent for backlighting

**NOTES:**

1. ALL TOLERANCES ARE ±.010" UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

**PHYSICAL CHARACTERISTICS**

TYPE	SOURCE COLOR	LENS COLOR
MV5966	AlGaAs Red	Pale Pink Tint
MV5766	High Efficiency Red	Pale Orange Tint
MV5466	High Efficiency Green	Pale Green Tint
MV5366	Yellow	Pale Yellow Tint

**MV5966/MV5766/MV5466/MV5366**

**ELECTRO-OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  Unless Otherwise Specified)

PARAMETER	SYMBOL	MV5366	MV5466	MV5766	MV5966	UNITS	CONDITIONS
Luminous intensity	min.	$I_v$	10	10	10	50	$I_F = 10 \text{ mA}$
	typ.		50	50	50	200	$I_F = 10 \text{ mA}$
Forward voltage	max.	$V_F$	3.0	3.0	3.0	2.2	$I_F = 10 \text{ mA}$
	typ.		2.1	2.2	2.0	1.8	$I_F = 10 \text{ mA}$
Peak wavelength	typ.	$\lambda_p$	585	565	635	650	nm
Spectral line halfwidth	typ.	$\Delta \lambda_{1/2}$	35	40	45	45	nm
Capacitance	typ.	C	45	20	45	45	pF $V=0, f=1 \text{ MHz}$
Reverse voltage	min.	$V_R$	5.0	5.0	5.0	5.0	V $I_R = 100 \mu\text{A}$
Total viewing angle	typ.	$2\theta_{1/2}$	16	16	16	16	degrees See Fig. 3

**ABSOLUTE MAXIMUM RATINGS** ( $T_A = 25^\circ\text{C}$  Unless Otherwise Specified)

PARAMETER	MV5966	MV5366/5466/5766
Power dissipation	87 mW	120 mW
Storage and operating temperature	$-55^\circ\text{C}$ to $100^\circ\text{C}$	$-55^\circ\text{C}$ to $+100^\circ\text{C}$
Lead soldering time at $260^\circ\text{C}$ (See Note 1)	5 sec	5 sec
Continuous forward current	30 mA	30 mA
Peak forward current (See Note 2)	300 mA	90 mA
Reverse voltage	5.0 V	5.0 V

**NOTES**

- At 1/16 inch (1.6 mm) from the bottom of the lamp.
- 1  $\mu\text{sec}$  pulse, 0.3% duty cycle.

MV5966/MV5766/MV5466/MV5366

**TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES**

( $T_A = 25^\circ\text{C}$  Unless Otherwise Specified)

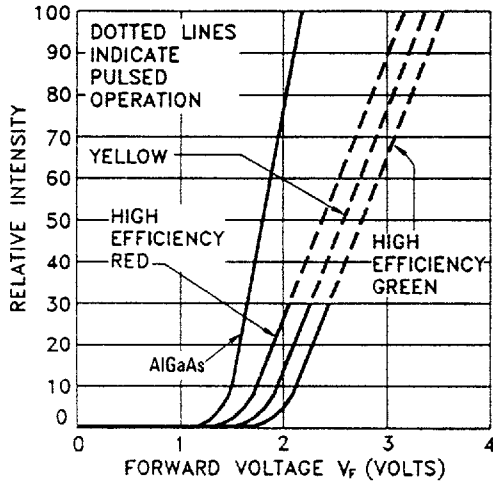


Fig. 1. Forward Current vs. Forward Voltage

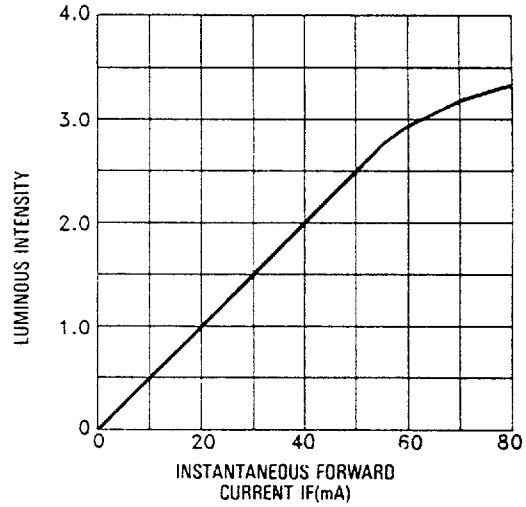


Fig. 2. Luminous Intensity vs. Forward Current

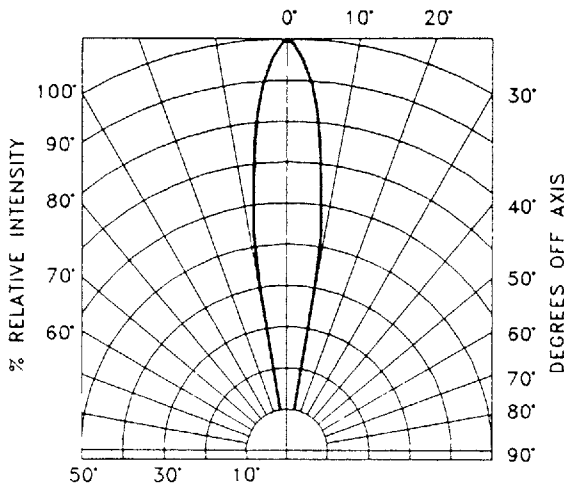


Fig. 3. Spatial Distribution

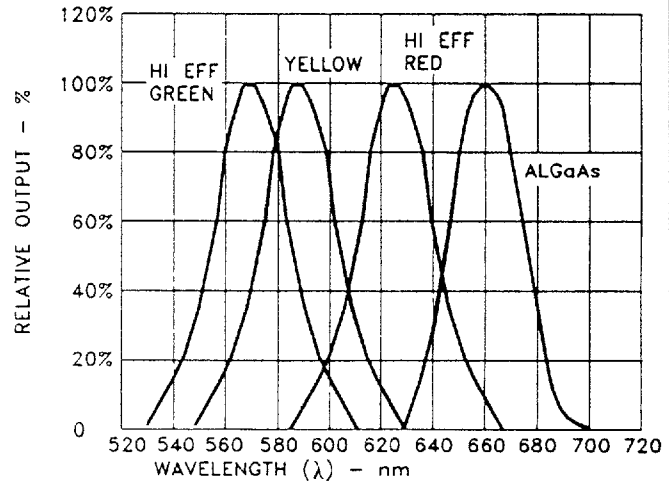


Fig. 4. Spectral Distribution

MV5966/MV5766/MV5466/MV5366

3