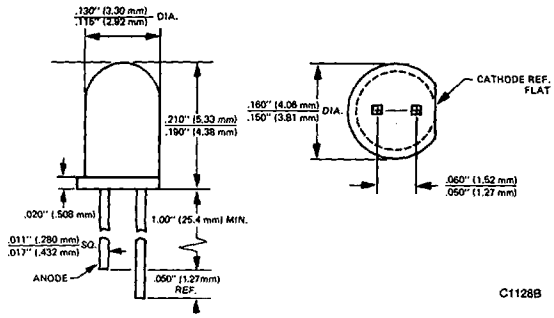
# YELLOW MV5374C
# STANDARD RED MV5074C HIGH EFFICIENCY GREEN MV5474C
# STANDARD RED MV5075C HIGH EFFICIENCY RED MV5774C

## PACKAGE DIMENSIONS




## DESCRIPTION

These solid state indicators offer a variety of color selection. The High Efficiency Red, Green and Yellow devices are made with a gallium arsenide phosphide on gallium phosphide. All are encapsulated in epoxy packages. Their small size (approximately T-1 size), good viewing angle, and small square leads contribute to their versatility as all purpose indicators.

## FEATURES

- Square leads (will fit into .020-inch (.508mm) diameter hole)
- Compact size
- Bright (typically 2.0 mcd at 20 mA)
- Long life, rugged
- 1-inch (25.4 mm) minimum lead length
- Mount on approximately 3/16-inch (4.72 mm) centers

## PHYSICAL CHARACTERISTICS

| TYPE | SOURCE COLOR | LENS COLOR | LENS EFFECT | PACKAGE STYLE |
|---|---|---|---|---|
| MV5074C | Standard Red | Red Clear | Narrow Beam | High Profile |
| MV5075C | Standard Red | Red Diffused | Wide Beam | High Profile |
| MV5374C | Yellow | Yellow Diffused | Wide Beam | High Profile |
| MV5474C | High Efficiency Green | Green Diffused | Wide Beam | High Profile |
| MV5774C | High Efficiency Red | Red Diffused | Wide Beam | High Profile |

## ELECTRO-OPTICAL CHARACTERISTICS ($T_A$=25°C Unless Otherwise Specified)

| PARAMETER | | SYMBOL | TEST COND. | UNITS | MV5074C | MV5075C | MV5374C | MV5474C | MV5774C |
|---|---|---|---|---|---|---|---|---|---|
| Forward voltage | typ. | $V_F$ | $I_F$=20 mA | V | 1.6 | 1.6 | 2.1 | 2.2 | 2.0 |
| | max. | | $I_F$=20 mA | V | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 |
| Luminous Intensity (See Note 1) | min. | $I_v$ | $I_F$=20 mA | mcd | 0.7 | 0.6 | 1.5 | 1.2 | 1.5 |
| | typ. | | $I_F$=20 mA | mcd | 2.5 | 1.5 | 9.0 | 9.0 | 9.0 |
| Peak wavelength | | λp | $I_F$=20 mA | nm | 660 | 660 | 585 | 565 | 635 |
| Spectral line half width | | | $I_F$=20 mA | nm | 20 | 20 | 35 | 35 | 45 |
| Capacitance | typ. | C | V=0 | pF | 23 | 23 | 45 | 20 | 45 |
| Reverse voltage | min. | $V_{BR}$ | $I_R$=100 μA | V | 5 | 5 | 5 | 5 | 5 |
| | typ. | | $I_R$=100 μA | V | 15 | 15 | 25 | 25 | 25 |
| Reverse current | max. | | $V_R$=5.0 V | μA | 100 | 100 | 100 | 100 | 100 |
| Viewing angle (total) | | 2θ ½ | See Fig. 3 | degrees | 70 | 90 | 90 | 90 | 90 |

## ABSOLUTE MAXIMUM RATINGS ($T_A$=25°C Unless Otherwise Specified)

| | |
|---|---|
| Power dissipation | 105 mW |
| Derate linearly from 25°C | −1.14 mW° C |
| Storage and operating temperature | −55°C to +100°C |
| Lead soldering time at 260° C (See Note 2) | 5 sec. |
| Continuous forward current | 35 mA |
| Peak forward current (μsec pulse 0.3% duty cycle) (MV5474C=90 mA) | 1.0 A |
| Reverse voltage | 5.0 V |

## TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

(25°C Free Air Temperature Unless Otherwise Specified)

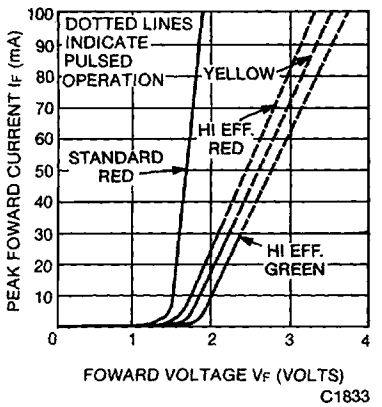



*Fig. 1. Forward Current vs. Forward Voltage*

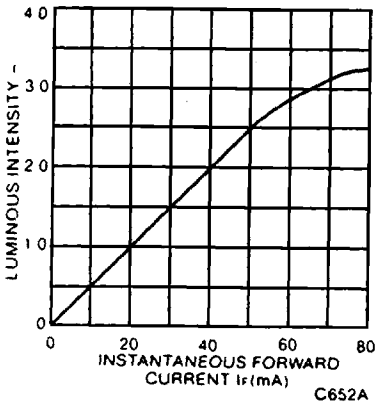



*Fig. 2. Luminous Intensity vs. Forward Current*

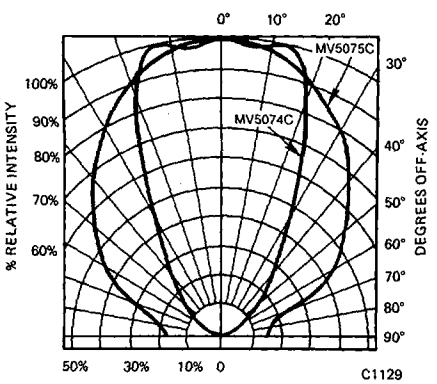



*Fig. 3. Spatial Distribution*

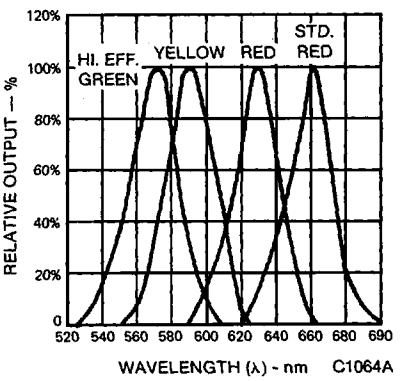



*Fig. 4. Spectral Distribution*

## NOTES

1. *As measured with a Photo Research Corp. "SPECTRA" Microcandela Meter (Model IV-D).*
2. *The leads of the device were immersed in molten solder, at 260°C, to a point 1/16 inch (1.6 mm) from the body of the device per MIL-S-750, with a dwell time of 5 seconds.*