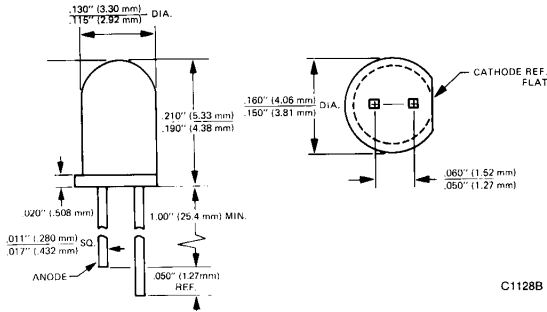


YELLOW MV5374C
STANDARD RED MV5074C HIGH EFFICIENCY GREEN MV5474C
STANDARD RED MV5075C HIGH EFFICIENCY RED MV5774C

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
- Long life, rugged
- 1-inch (25.4 mm) minimum lead length
- Mount on approximately 3/16-inch (4.72 mm) centers

C1128B

| 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 |



T-1
SOLID STATE LAMPS

| ELECTRO-OPTICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ Unless Otherwise Specified) | | | | | | | | | | |
|---------------------------------------------------------------------------------------------|------|------------------------|------------------------|--|---------------|---------|---------|---------|---------|---------|
| PARAMETER | | SYMBOL | TEST COND. | | UNITS | MV5074C | MV5075C | MV5374C | MV5474C | MV5774C |
| | | | | | | | | | | |
| Forward voltage | typ. | V_f | $I_f=20\text{ mA}$ | | V | 1.6 | 1.6 | 2.1 | 2.2 | 2.0 |
| | max. | | $I_r=20\text{ mA}$ | | V | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 |
| Luminous Intensity | min. | I_v | $I_f=20\text{ mA}$ | | mcd | 0.7 | 0.6 | 1.5 | 1.2 | 1.5 |
| | typ. | | $I_r=20\text{ mA}$ | | mcd | 2.5 | 1.5 | 9.0 | 9.0 | 9.0 |
| Peak wavelength | | λ_p | $I_f=20\text{ mA}$ | | nm | 660 | 660 | 585 | 565 | 635 |
| Spectral line half width | | | $I_f=20\text{ mA}$ | | nm | 20 | 20 | 35 | 35 | 45 |
| Capacitance | typ. | C | V=0 | | pF | 23 | 23 | 45 | 20 | 45 |
| Reverse voltage | min. | V_{BR} | $I_r=100\ \mu\text{A}$ | | V | 5 | 5 | 5 | 5 | 5 |
| | typ. | | $I_r=100\ \mu\text{A}$ | | V | 15 | 15 | 25 | 25 | 25 |
| Reverse current | max. | | $V_R=5.0\text{ V}$ | | μA | 100 | 100 | 100 | 100 | 100 |
| Viewing angle (total) | | $2\theta\ \frac{1}{2}$ | See Fig. 3 | | degrees | 70 | 90 | 90 | 90 | 90 |

| ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ Unless Otherwise Specified) | |
|-----------------------------------------------------------------------------------------------|---------------------------------------------|
| Power dissipation | 105 mW |
| Derate linearly from 25°C | $-1.14\text{ mW}^\circ\text{C}$ |
| Storage and operating temperature | -55°C to $+100^\circ\text{C}$ |
| Lead soldering time at 260°C (See Note 1) | 5 sec. |
| Continuous forward current (MV5374C=20 mA) | 35 mA |
| Peak forward current (μsec pulse 0.3% duty cycle) (MV5474C=90 mA) (MV5374C=60 mA) | 1.0 A |
| Reverse voltage | 5.0 V |

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES
(25°C Free Air Temperature Unless Otherwise Specified)

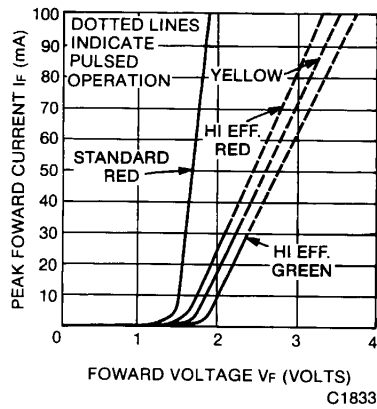


Fig. 1. Forward Current vs. Forward Voltage

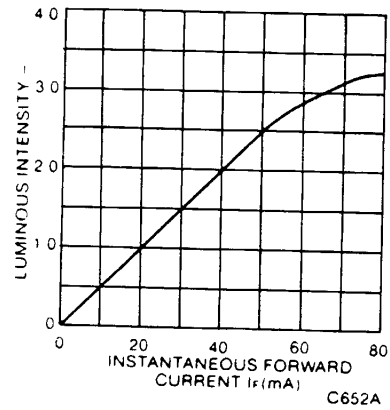


Fig. 2. Luminous Intensity vs. Forward Current

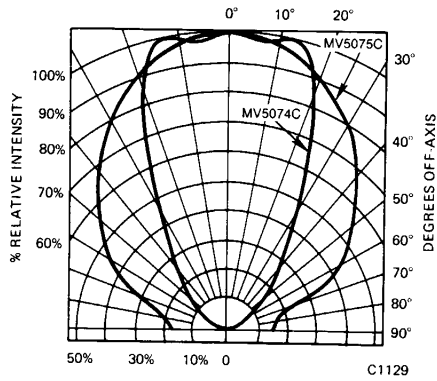


Fig. 3. Spatial Distribution

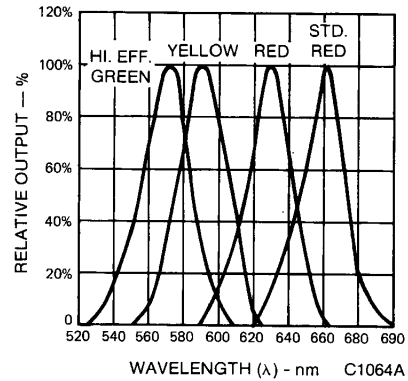


Fig. 4. Spectral Distribution

NOTES

1. 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.