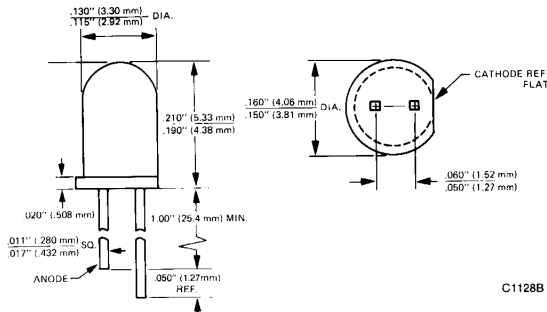




T-1 SOLID STATE LAMPS

STANDARD RED **MV5074C** HIGH EFFICIENCY GREEN **MV5474C**
STANDARD RED **MV5075C** HIGH EFFICIENCY RED **MV5774C**

PACKAGE DIMENSIONS



C1128B

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

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.		$I_f = 20\text{ mA}$	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.		$I_f = 20\text{ mA}$	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_{RR}	$I_R = 100\text{ }\mu\text{A}$	V	5	5	5	5	5
	typ.		$I_R = 100\text{ }\mu\text{A}$	V	15	15	25	25	25
Reverse current	max.		$V_R = 5.0\text{ V}$	μA	100	100	100	100	100
Viewing angle (total)		$2\theta\text{ }^\circ$	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)

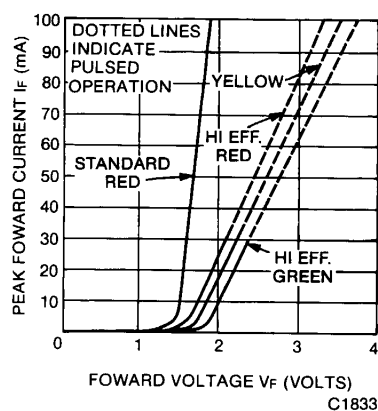


Fig. 1. Forward Current vs. Forward Voltage

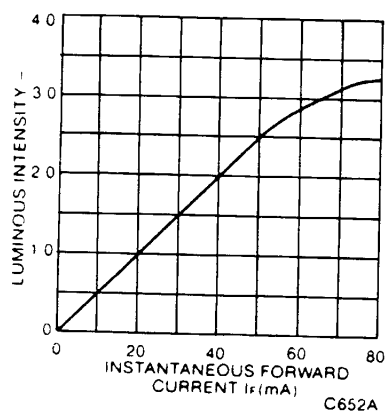


Fig. 2. Luminous Intensity vs. Forward Current

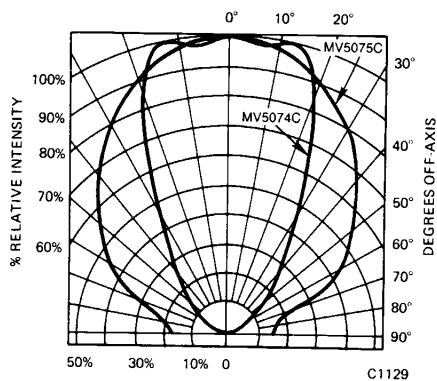


Fig. 3. Spatial Distribution

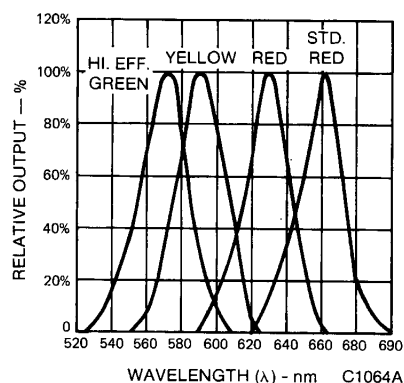


Fig. 4. Spectral Distribution

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.