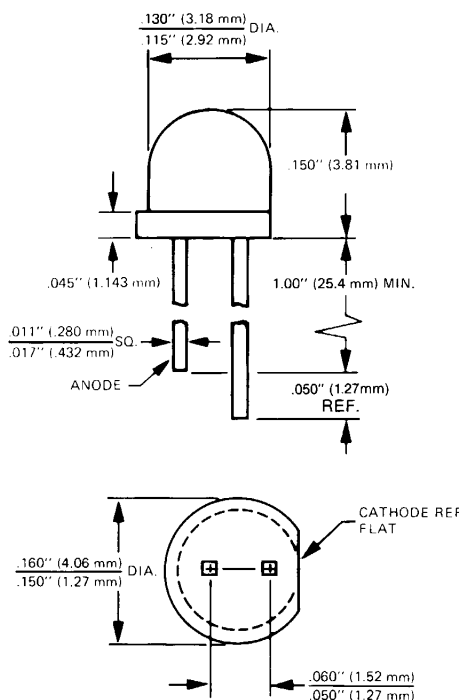




LOW PROFILE T-1 SOLID STATE LAMPS

STANDARD RED **MV5077C** HIGH EFFICIENCY GREEN **MV5477C**
YELLOW **MV5377C** HIGH EFFICIENCY RED **MV5777C**

PACKAGE DIMENSIONS



NOTE: TOLERANCE $\pm .010"$
UNLESS SPECIFIED

C1132A

DESCRIPTION

These solid state indicators offer a low profile T-1 package. 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 (.508 mm) diameter holes)
- Compact size
- Very wide viewing angle
- Long life, rugged
- Mount on approximately 3/16-inch (4.72 mm) centers
- Tinted diffused

PHYSICAL CHARACTERISTICS

TYPE	SOURCE COLOR	LENS COLOR	LENS EFFECT	PACKAGE STYLE
MV5077C	Standard Red	Red Diffused	Wide Beam	Low Profile
MV5377C	Yellow	Yellow Diffused	Wide Beam	Low Profile
MV5477C	High Efficiency Green	Green Diffused	Wide Beam	Low Profile
MV5777C	Red	Red Diffused	Wide Beam	Low Profile



LOW PROFILE T-1 SOLID STATE LAMPS

ELECTRO-OPTICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless Otherwise Specified)								
PARAMETER		SYMBOL	TEST COND.	UNITS	MV5077C	MV5377C	MV5477C	MV5777C
Forward voltage	typ.	V_F	$I_F=20\text{ mA}$	V	1.6	2.1	2.2	2.0
	max.		$I_F=20\text{ mA}$	V	2.0	3.0	3.0	3.0
Luminous Intensity	min.	I_v	$I_F=20\text{ mA}$	mcd	0.3	1.0	1.0	1.0
	typ.		$I_F=20\text{ mA}$	mcd	1.75	7.0	7.0	7.0
Peak wavelength		λ_p	$I_F=20\text{ mA}$	nm	660	585	565	635
Spectral line half width			$I_F=20\text{ mA}$	nm	20	35	35	45
Capacitance	typ.	C	V=0	pF	23	45	20	45
Reverse voltage	min.	V_R	$I_R=100\text{ }\mu\text{A}$	V	5	5	5	5
	typ.		$I_R=100\text{ }\mu\text{A}$	V	15	25	25	25
Viewing angle (total)	(Fig. 3)	$2\theta\frac{1}{2}$		degrees	180	180	180	180

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 $+100^{\circ}\text{C}$
Continuous forward current (MV5377C=20 mA)	35 mA
Peak forward current (μsec pulse 0.3% duty cycle) (MV5477C=90 mA) (MV5377C=60 mA)	1.0 A
Reverse voltage	5.0 V
Lead soldering time at 260°C (See Note 1)	5 sec.

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

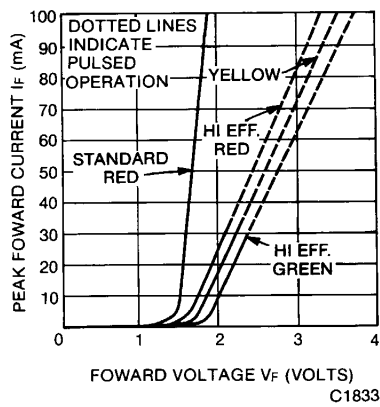


Fig. 1. Forward Current vs. Forward Voltage

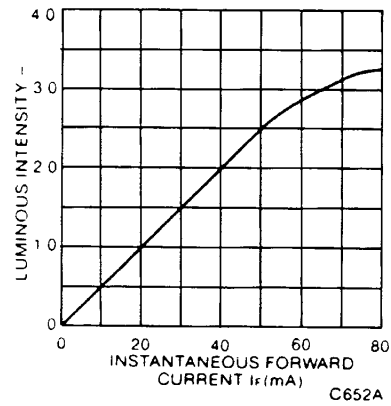


Fig. 2. Luminous Intensity vs. Forward Current

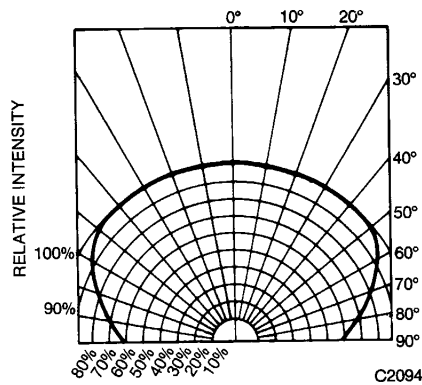


Fig. 3. Spatial Distribution

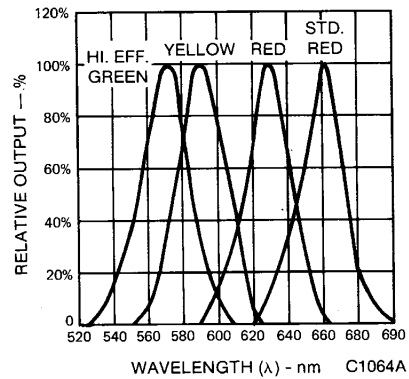


Fig. 4. Spectral Distribution

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.