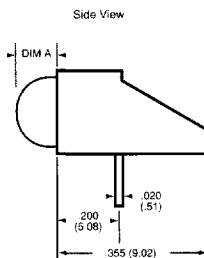
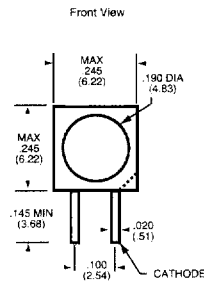


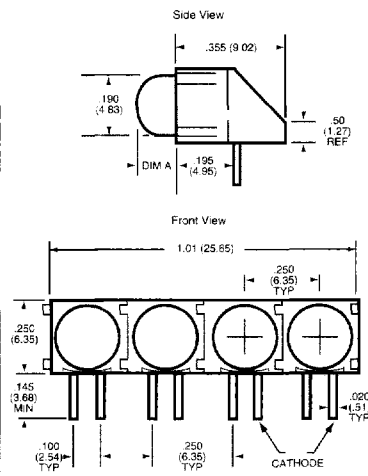
## PCB AND PANEL MOUNT LED INDICATORS

T-1 3/4 (5 mm)



Part Number	Source Color	Wave-length $\lambda_p$ (nm)	Lens Color	Typical Viewing Angle	$I_F$ (mA) for MR Parts		Luminous Intensity $I_V$ (mcd)		Notes
					$V_F$ (V) typ	max	min	typ	
MV60538.MP7		660	Red Diffused	65°	1.7	2.0	0.8	2.0	4, 11
MV63538.MP7	Yellow	585	Yellow Diffused	65°	2.1	3.0	3.5	18	4, 11
MV64538.MP7		565	Green Diffused	65°	2.2	3.0	1.6	25	4, 11
MV67538.MP7		635	Red Diffused	65°	2.1	3.0	3.0	14	4, 11
MV60539.MP7		660	Red Diffused	65°	1.7	2.0	0.8	2.0	4, 16
MV63539.MP7	Yellow	585	Yellow Diffused	65°	2.1	3.0	2.5	18	4, 16
MV64539.MP7		565	Green Diffused	65°	2.2	3.0	16	25	4, 16
MV67539.MP7		635	Red Diffused	65°	2.1	3.0	3.0	14	4, 16
HLMP-47009.MP7		635	Red Diffused	45°	1.8	2.2	1.2	2.0	2, 16
HLMP-47199.MP7	Yellow	585	Yellow Diffused	45°	1.9	2.7	1.2	10	2, 16
HLMP-47409.MP7		565	Green Diffused	65°	1.9	2.3	1.2	2.0	2, 16
HLMP-D1019.MP7		660	Red Diffused	24°	1.8	2.2	35	70	4, 16
HLMP-D1509.MP7			Red Clear	24°	1.6	1.8	1.2	3.0	4, 16
MV33509.MP7	Yellow	585	Yellow Clear	24°	2.2	3.0	80	150	4, 16
MV34509.MP7		565	Green Clear	24°	2.2	3.0	80	150	4, 16
MV37509.MP7		635	Orange Clear	24°	2.2	3.0	80	150	4, 16
MR30509.MP7		660	Red Diffused	60°	5.0	20	1.0	2.0	8,15,18
MR30519.MP7				60°	12.0	20	1.0	2.0	9,15,18
MR33509.MP7	Yellow	585	Yellow Diffused	60°	5.0	15	1.5	4.0	8,15,18
MR33519.MP7				60°	12.0	20	1.5	4.0	9,15,18
MR34509.MP7		565	Green Diffused	60°	5.0	15	1.5	4.0	8,15,18
MR34519.MP7				60°	12.0	20	1.5	4.0	9,15,18
MR37509.MP7		635	Red Diffused	60°	5.0	15	1.5	4.0	8,15,18
MR37519.MP7				60°	12.0	20	1.5	4.0	9,15,18
MV54919.MP7		660 / 565	White Diffused	100°	2.3	3.0	2.0	6.0	4,12,13,16

7-1 3/4 (5 mm) Multiple										
Part Number	Source Color	Wave-length $\lambda_p$ (nm)	Lens Color	Typical Viewing Angle	$I_F$ (mA) for MR Parts $V_F$ (V) typ max		Luminous Intensity $I_V$ (mcd) min typ		Notes	
MV60538.MP8B		660	Red Diffused	65°	1.7	2.0	0.8	2.0	4, 17	
MV63538.MP8B	Yellow	585	Yellow Diffused	65°	2.1	3.0	3.5	18	4, 17	
MV64538.MP8B		565	Green Diffused	65°	2.2	3.0	16	25	4, 17	
MV67538.MP8B		635	Red Diffused	65°	2.1	3.0	3	14	4, 17	
MV60539.MP8B		660	Red Diffused	65°	1.7	2.0	0.8	2.0	4, 18	
MV63539.MP8B	Yellow	585	Yellow Diffused	65°	2.1	3.0	2.5	18	4, 18	
MV64539.MP8B		565	Green Diffused	65°	2.2	3.0	16	25	4, 18	
MV67539.MP8B		635	Red Diffused	45°	2.1	3.0	3	14	4, 18	
HLMP-47009.MP8B		635	Red Diffused	45°	1.8	2.2	1.2	2.0	2, 18	
HLMP-47199.MP8B	Yellow	585	Yellow Diffused	45°	1.9	2.7	1.2	10	2, 18	
HLMP-47409.MP8B		565	Green Diffused	45°	1.9	2.3	1.2	2.0	2, 18	
MV33509.MP8B	Yellow	585	Yellow Clear	24°	2.2	3.0	80	150	4, 18	
MV34509.MP8B		565	Green Clear	24°	2.2	3.0	80	150	4, 18	
MV37509.MP8B		635	Orange Clear	24°	2.2	3.0	80	150	4, 18	
MR30509.MP8B		660	Red Diffused	60°	12	20	1.0	2.0	8,15,18	
MR30519.MP8B				60°	13	20	1.0	2.0	9,15,18	
MR33509.MP8B	Yellow	585	Yellow Diffused	60°	10	15	1.5	4.0	8,15,18	
MR33519.MP8B					60°	13	20	1.5	4.0	9,15,18
MR34509.MP8B		565	Green Diffused	60°	12	15	1.5	4.0	8,15,18	
MR34519.MP8B					60°	13	20	1.5	4.0	9,15,18
MR37509.MP8B		635	Red Diffused	60°	10	15	1.5	4.0	8,15,18	
MR37519.MP8B					60°	13	20	1.5	4.0	9,15,18
MV54919.MP8B		660 / 565	White Diffused	100°	2.1	3.0	2.0	6.0	4,13,14,18	

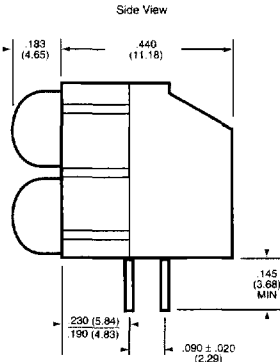
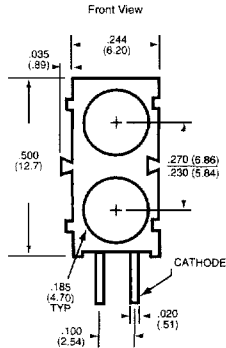


### Notes

2.  $V_F$  &  $I_V$  @  $I_F = 2$  mA
4.  $V_F$  &  $I_V$  @  $I_F = 20$  mA
8.  $I_F$  &  $I_V$  @  $V_F = 5$  V
9.  $I_F$  &  $I_V$  @  $V_F = 12$  V
13. Bicolor
14. The cathode is the AlGaAs Red cathode for red/green bicolor LED.
15. Integral Resistor
18. Dim A = 0.195 (4.95)  
HER = High Efficiency Red

## PCB AND PANEL MOUNT LED INDICATORS

T: 3/4 (5 mm) Bilevel



Part Number	Source Color	Wave-length $\lambda_p$ (nm)	Lens Color	Typical Viewing Angle	$I_F$ (mA) for MR Parts		Luminous Intensity $I_V$ (mcd)		Notes
					$V_F$ (V) typ	max	min	typ	
MV60539.MP90		660	Red Diffused	65°	1.7	2.0	0.8	2.0	4
MV63539.MP93	Yellow	585	Yellow Diffused	65°	2.1	3.0	2.5	18	4
MV64539.MP94	Yellow	565	Green Diffused	65°	2.2	3.0	16	25	4
MV67539.MP97		635	Red Diffused	65°	2.1	3.0	3	14	4
HLMP-47009.MP97		635	Red Diffused	45°	1.9	2.2	1.2	2.0	2
HLMP-47199.MP93	Yellow	585	Yellow Diffused	45°	1.9	2.7	1.2	10	2
HLMP-47409.MP94	Yellow	565	Green Diffused	45°	1.9	2.3	1.2	2.0	2
MV33509.MP93	Yellow	585	Yellow Clear	24°	2.2	3.0	80	150	4
MV34509.MP94	Yellow	565	Green Clear	24°	2.2	3.0	80	150	4
MV37509.MP97		635	Orange Clear	24°	2.2	3.0	80	150	4
MR30509.MP90		660	Red Diffused	60°	12	20	1.0	2.0	8, 15
MR33509.MP93	Yellow	585	Yellow Diffused	60°	10	15	1.5	4.0	8, 15
MR34509.MP94	Yellow	565	Green Diffused	60°	12	15	1.5	4.0	8, 15
MR37509.MP97		635	Red Diffused	60°	10	15	1.5	4.0	8, 15
MV54919 MP91		660 565 660 565	White Diffused	100°	2.1	3.0	2.0	6.0	4,13,14