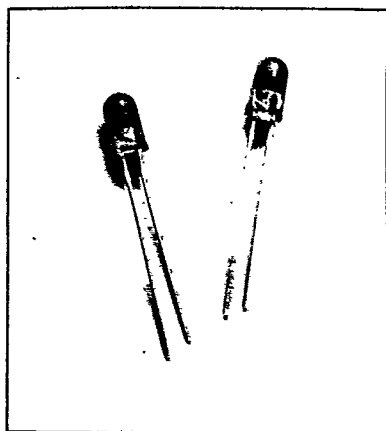


SIEMENS

RED **LDR 5091/5092/5093**
 HIGH EFFICIENCY RED **LDH 5191/5192/5193**
 YELLOW **LDY 5391/5392/5393**
 GREEN **LDG 5591/5592**
T1¾ LED LAMP

**FEATURES**

- High Light Output
- Lightly Tinted Clear Lens
- Wide Viewing Angle, 24°
- T1¾ Package Size
- 1" Lead Length
- Front Panel Mounting
Snap-in Mounting Clips Available
Clip/Collar #2004-9002 Black
#2004-9003 Clear
- I/C Compatible

DESCRIPTION

The LDR 509X is a standard red GaAsP light emitting diode lamp. The LDH 519X high efficiency red and LDY 539X yellow lamps are fabricated with TSN (transparent substrate nitrogen) technology. The LDG 559X is a gallium phosphide LED lamp. All four have a lightly tinted clear lens with a narrow viewing angle for the concentration of intense brightness in a head-on position. This is particularly desirable for legend back lighting applications.

See graph numbers on pages 4-27 - 4-34.

Red: 1D, 2H, 3D, 5B, 6C, 7B, 8B, 9B, 10A

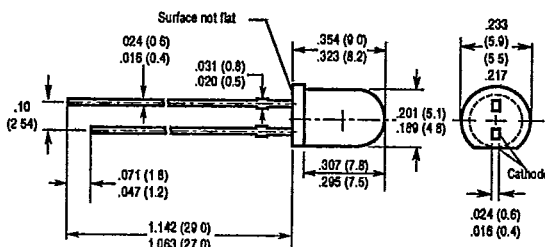
HER: 1A, 2I, 3A, 5A, 6A, 7A, 8A, 9A, 10C

Yellow: 1A, 2I, 3E, 5A, 6A, 7A, 8A, 9A, 10C

Green: 1A, 2I, 3B, 5A, 6D, 7C, 8A, 9A, 10A

T-41-21

Package Dimensions in Inches (mm)

**Maximum Ratings**

	LDR 509X	LDH 519X LDY 539X LDG 559X	V
Reverse voltage	V_R	5	5
Forward current	I_F	100	60
Surge current ($t \leq 10 \mu s$)	I_{FS}	2	1
Storage temperature range	T_{stg}	-55 to +100	°C
Junction temperature	T_J	100	°C
Total power dissipation ($T_{amb} = 25^\circ C$)	P_{tot}	200	mW
Thermal resistance, junction to air	R_{thJA}	375	K/W

Characteristics ($T_{amb} = 25^\circ C$)

	LDR 509X	LDH 519X	LDY 539X	LDG 559X	
Wavelength at peak emission	λ_{peak}	665 ± 15	645 ± 15	590 ± 10	560 ± 15
Dominant wavelength	λ_{dom}	645	638	592	561
Viewing angle (Limits for 50% of luminous intensity I_v)	ϕ	24	24	24	24
Forward voltage ($I_F = 20mA$)	V_F	1.6(≤2.0)	2.4(≤3.0)	0.01(≤1.0)	
Reverse current ($V_R = 5V$)	I_R	5	100	100	50
Rise time	t_r	5	100	100	50
Fall time	t_f	5	100	100	50
Capacitance ($V_r = 0V, f = 1MHz$)	C_0	40	12	10	45

Luminous Intensity Grouping

P/N	Min Mcd	Test Current
LDR 5091	2.5	20 mA
LDR 5092	4.0	20 mA
LDR 5093	10	20 mA
LDH 5191	10	10 mA
LDH 5192	20	10 mA
LDH 5193	30	10 mA
LDY 5391	10	10 mA
LDY 5392	20	10 mA
LDY 5393	30	10 mA
LDG 5591	40	20 mA
LDG 5592	80	20 mA