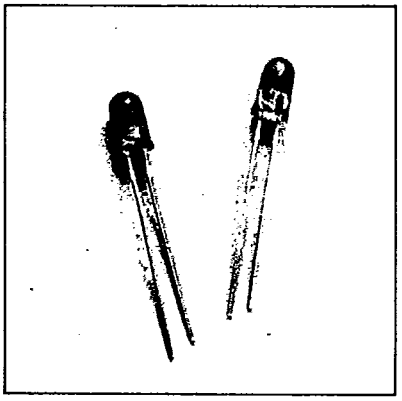
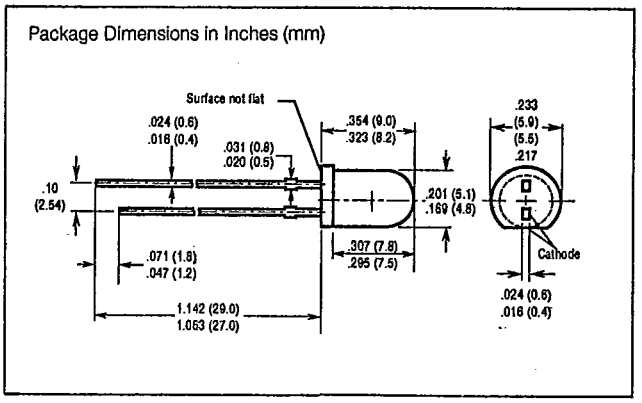
SIEMENS

RED LDR 5101/5102/5103
HIGH EFFICIENCY RED LDH 5121/5122/5123
HIGH EFFICIENCY YELLOW LDY 5161/5162/5163
HIGH EFFICIENCY GREEN LDG 5171/5172

T1¾ LED LAMP





FEATURES

- **High Light Output**
- **Diffused Lens**
- **Wide Viewing Angle 70°**
- **With Standoffs**
- **T1 ¾ 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 510X Series is a standard red gallium arsenide phosphide (GaAsP) LED lamp. The LDH 512X high efficiency red and LDY 516X yellow are premium high efficiency light emitting diode lamps fabricated with TSN (transparent substrate nitrogen) technology. The LDG 517X green is a gallium phosphide (GaP) lamp. All have a diffused plastic lens which emits a full flooded intense light.

See graph numbers on pages 4-27 – 4-34.
Red: 1A, 2G, 3D, 5B, 6C, 7B, 8B, 9B, 10B
HER: 1A, 2G, 3A, 5A, 6A, 7A, 8A, 9A, 10A
Yellow: 1A, 2G, 3E, 5A, 6A, 7A, 8A, 9A, 10A
Green: 1A, 2G, 3B, 5A, 6D, 7C, 8A, 9A, 10A

Maximum Ratings

		LDR 510X	LDH 512X LDY 516X LDG 517X	
Reverse voltage	V_R	5	5	V
Forward current	I_F	100	60	mA
Surge current ($\tau \leq 10\mu s$)	i_{FS}	2	1	A
Storage temperature range	T_{stg}	-55 to +100		°C
Junction temperature	T_j	100	100	°C
Total power dissipation (T_{amb} = 25°C)	P_{tot}	200	200	mW
Thermal resistance junction to air	R_{thJA}	375	375	K/W

Characteristics (T_{amb} = 25°)

		LDR 510X	LDH 512X	LDY 516X	LDG 517X	
Wavelength at peak emission	λ_{peak}	665±15	645±15	590±10	560±15	nm
Dominant wavelength	λ_{dom}	645	638	592	561	nm
Viewing angle (Limits for 50% of luminous intensity I_v	φ	70	70	70	70	Deg.
Forward voltage (I_F = 20mA)	V_F	1.6(≤2.0)		2.4(≤3.0)		V
Reverse current (V_R = 5 V)	I_R			0.01 (≤10)		µA
Rise time	t_r	5	100	200	50	ns
Fall time	t_f	5	100	200	50	ns
Capacitance (V_R = 0 V; f = 1MHz)	C_0	40	12	10	45	pF

Luminous Intensity Grouping

P/N	mcd (Min)	Test Conditions
LDR 5101	1.0	20mA
LDR 5102	2.5	20mA
LDR 5103	4.0	20mA
LDH 5121	2.0	10mA
LDH 5122	4.0	10mA
LDH 5123	6.0	10mA
LDY 5161	1.0	10mA
LDY 5162	2.5	10mA
LDY 5163	4.0	10mA
LDG 5171	2.5	20mA
LDG 5172	6.0	20mA