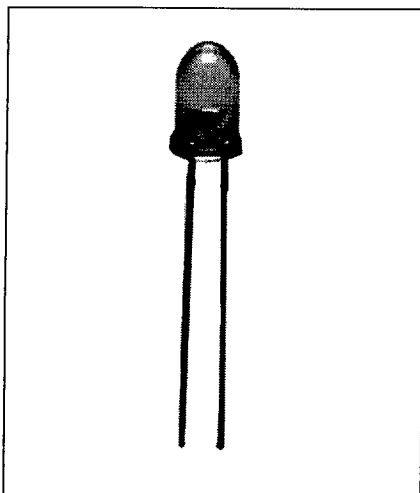


SIEMENS

DOUBLE HETERO JUNCTION LH 5424-QO DOUBLE HETERO JUNCTION LH 5464-LO

HYPER RED GaAlAs T1³/₄ (5mm) LED LAMP



FEATURES

- T1³/₄ (5mm) Package
- Double Hetero Junction Technology
- Choice of Diffused Lens—LH 5464 or Red Clear Lens—LH 5424
- High Luminous Intensity
- Excellent Light Efficiency for Low Current Operation
- IC Compatible

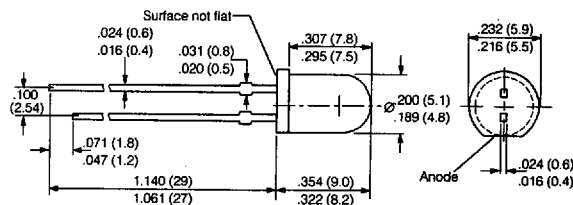
DESCRIPTION

The T1³/₄ hyper red GaAlAs LED lamps use double hetero junction material to produce very high luminous intensities. When operated at very low currents (1 mA) these lamps can produce luminous intensities comparable to standard and high efficiency LEDs that operate at 10 mA to 20 mA.

Luminous Intensity and Lens Type

Part No.	Lens Type	Luminous Intensity* I _F = 10 mA, I _V (mcd)	
		Typ.	Min.
LH 5424-QO	red clear	320	63
LH 5464-LO	red diffused	60	10

Package Dimensions in Inches (mm)



Maximum Ratings

Operating Temperature Range (T _{OP})	-55°C to + 100°C
Storage Temperature Range (T _{STG})	-55°C to +100°C
Junction Temperature (T _J)	+ 100°C
Reverse Voltage (V _R)	3 V
Forward Current (I _F)	40 mA
Surge Current (I _{FM})	0.5 A
Power Dissipation (P _{TOT}) T _A =25°C	120 mW
Thermal Resistance, Junction to Air (R _{thJA})	400 K/W

Characteristics (T_A=25°C) All values typical unless otherwise noted.

Parameter	Symbol	Value	Unit	Test Condition
Peak Wavelength	λ _{PEAK}	660	nm	I _F =20 V
Dominant Wavelength	λ _{DOM}	645	nm	I _F =20 V
Spectral Bandwidth				
50% I _V	Δλ	22	nm	I _F = 20 mA
Viewing Angle 50% I _V				
LH 5424	2 φ	16	Deg.	
LH 5464	2 φ	35	Deg.	
Forward Voltage	V _F	1.75 (≤2.6)	V	I _F = 10 mA
Reverse Current	I _R	0.01 (≤10)	μA	V _R = 3 V
Capacitance	C ₀	25	pF	V _R =0, f=1 MHz
Switching Times				I _F =100 mA,
Rise time—10% to 90%	t _R	140	ns	t _p =10 μs,
Fall time—90% to 10%	t _F	110	ns	R _L =50 Ω

* Luminous intensity ratio of one packaging unit I_{VMAX}/I_{VMIN} ≤ 2

See graph numbers 1, 2I (LH5424), 2J (LH5464), 3A, 4B, 5A, 6A, 7A, 8A, 9A, 10B in the back of this section.