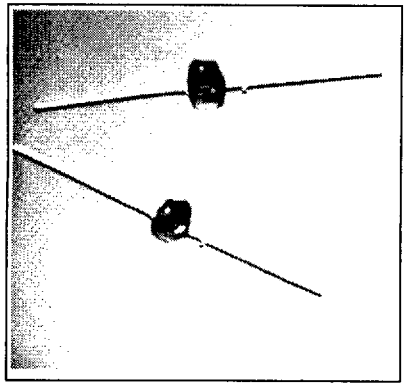
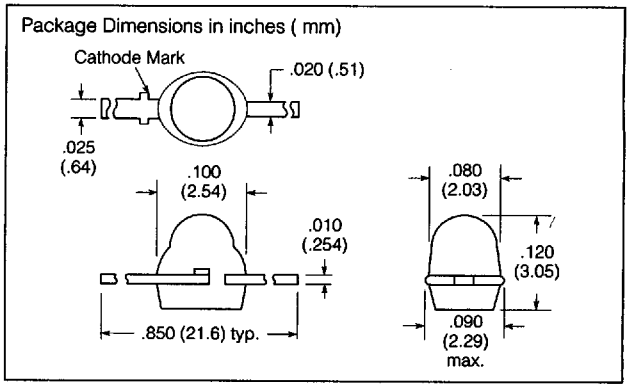
SIEMENS

RED RL-55
YELLOW YL-56
GREEN GL-56

Miniature Axial Lead LED Lamp





FEATURES

- **High on Axis Intensity**
- **Optimum Packaging Design for Maximum Strength at Minimum Linear Spacing**
- **Operates from 5 Volt IC Logic Supply**
- **Miniature Axial Lead**
- **High Reliability**
- **Low Cost Version (Red), RL-55-5**

DESCRIPTION

The RL-55 is a gallium arsenide phosphide lamp and the GL-56/YL-56 are gallium phosphide lamps that have on-axis intensity, long life and low cost. They have diffused lenses and provide a full 0.080" flooded light with good constrast.

Applications include mounting on PC boards at low current as diagnostic and circuit status indicators.

Maximum Ratings

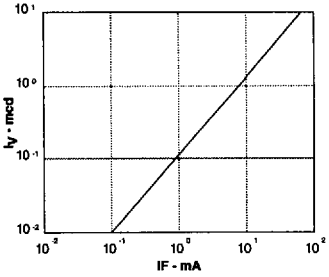
Operating and Storage Temperature Range ..... −55°C to +100°C
Lead Solder Time, 260°C (.063" from case) ..... 5 sec.
Peak Inverse Voltage ..... 3 V
Continuous Forward Current
RL-55 ..... 40 mA
GL-56, YL-56 ..... 25 mA
Peak Forward Current (1 µs pulse, 0.1% duty cycle) ..... 250 mA
Power Dissipation (T_A=25°C) ..... 80 mW
Derate Linearly from 25°C ..... −1.1 mW/°C

Electrical/Optical Characteristics (T_A=25°C)

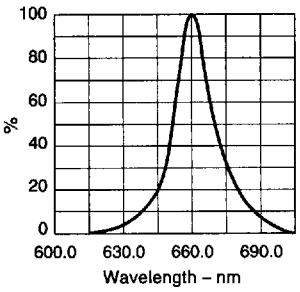
Parameter	Min.	Typ.	Max.	Unit	Test Condition
Wavelength, Peak Emission					
RL-55		660		nm	
GL-56		565		nm	
YL-56		585		nm	
Spectral Line Half Width		40		nm	
Viewing Angle					
RL-55		50		Deg.	
GL-56, YL-56		40		Deg.	
Forward Voltage					
RL-55		1.6	2.0	V	I_F=20 mA
GL-56		2.2	3.5	V	I_F=20 mA
YL-56		2.4	3.5	V	I_F=20 mA
Reverse Current		0.15	10	µA	V_R=3 V
Luminous Intensity					
RL-55	2.0	2.2		mcd	I_F=10 mA
GL-56	1.0	1.3		mcd	I_F=10 mA
YL-56	2.0	2.2		mcd	I_F=10 mA

Red, RL-55

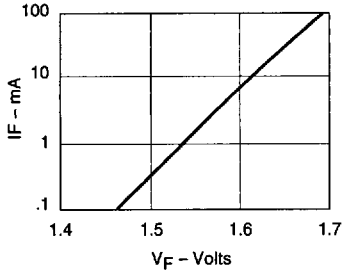
Luminous Intensity versus forward current



Relative spectral emission

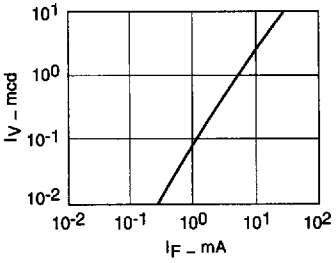


Forward current versus forward voltage

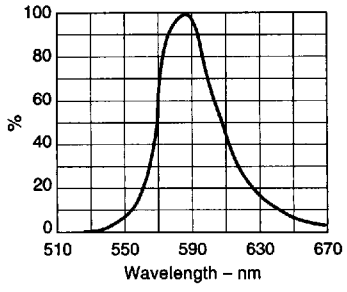


Yellow, YL-56

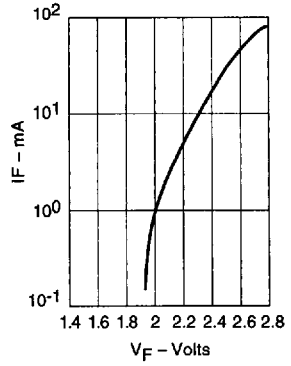
Luminous intensity versus forward current



Relative spectral emission

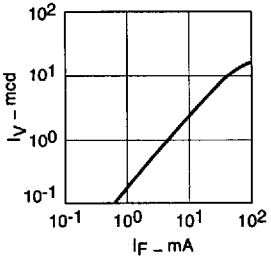


Forward current versus forward voltage

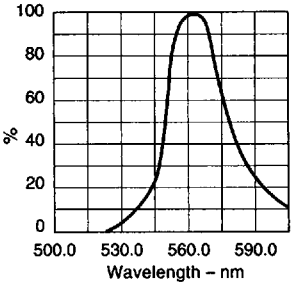


Green, GL-56

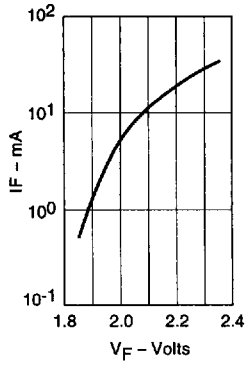
Luminous intensity versus forward current



Relative spectral emission



Forward current vs. forward voltage



Radiation characteristics