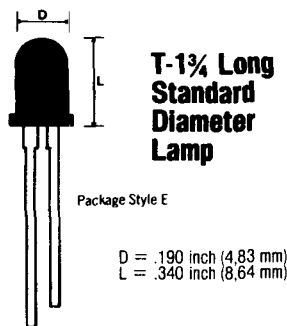
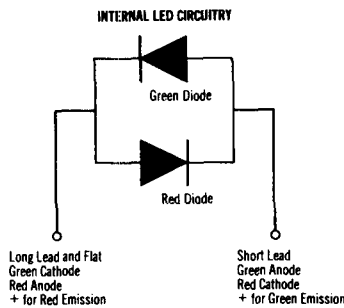


# BI-COLOR LED LAMP XC-5491

This unique lamp contains two LED dice. With one current polarity the XC-5491 emits bright red light. Reverse the current and bright green light is emitted. The XC-5491 is designed to produce uniform, bright light intensity at a modest 10 mA drive.

Applications include electronic music systems, alarm circuits, and instrumentation.

## RED – GREEN – OFF IN ONE PACKAGE



Use NSC003 panel mounting clip & ring

ELECTRICAL/OPTICAL CHARACTERISTICS (25°C)			
Forward Voltage at 10 mA	Typ	Volts	2.2
	Max	Volts	2.8
Dynamic Resistance	Typ	Ohms	25
Capacitance, V=0	Typ	pf	100
Peak Wavelength	Red	nm	697
	Grn	nm	565
Light Output (Red and Green) at 10 mA	Min	mcd	0.6
	Typ	mcd	1.8
ABSOLUTE MAXIMUM RATINGS at 25°C			
Maximum Continuous Current (Red and Green)	mA		25
Peak Pulse Current 0.5 mS, 500 Hz	mA		60
Maximum Power Dissipation	mW		115
Derate Linearly From 25°C	mW/°C		1.5
Storage and Operating Temp Range	°C		-55 to +100
Max Lead Solder Temperature (5 sec. immersion, 1/16 inch from plastic)	°C		260

# NSL4944 Current Regulated, Universal RED LED Lamp

This lamp contains an internal current regulating IC that provides a constant intensity over a wide voltage range. The NSL-4944 emits red light and is packaged in a standard two leaded T-1- $\frac{3}{4}$  (5 mm) red diffused plastic package. This lamp may be either ac or dc driven.

Application include indicator lights, annunciators, PCB logic status indicators, and battery charging circuits.

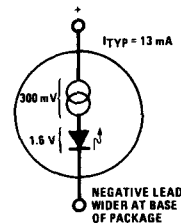


FIGURE 1. Equivalent Circuit

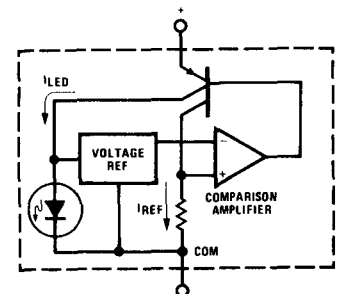


FIGURE 2. Simplified Schematic

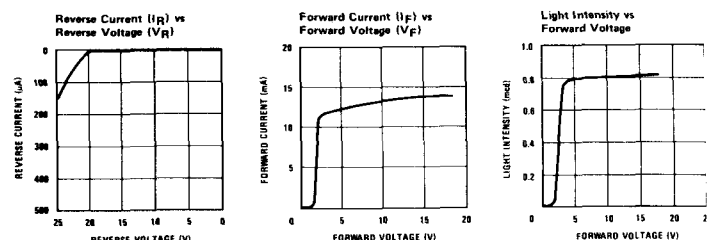
## PACKAGE STYLE S

### Electrical/Optical Characteristics (25°C)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Forward Current ( $I_F$ )	$2.4 \leq V_F \leq 18V$	10	13	18	mA
Light Intensity (I)	$V_F \approx 5V$	0.2	0.8		mcd
Reverse Breakdown Voltage ( $BV_R$ )	$I_R = 100\mu A$	18.0			V
Peak Wavelength ( $\lambda_{pk}$ )	$V_F = 10V$		660		nm
Spectral Width	$V_F = 10V$		40		nm
Angle of Half Intensity	$V_F = 10V$		110		degrees
Minimum Operational Voltage	$I_F = 10 \text{ mA}$		1.9	2.4	V

See Applications Note AN-153 for further information.  
Use NSC003 Panel Mounting Clip & Ring.

### Typical Performance Characteristics (25°C)



High Efficiency RED, YELLOW & GREEN units are available on special order, consult National Sales Office