

LTL-16KR/16KRE RED

LTL-16KG/16KGE GREEN

LTL-16KP/16KPE BRIGHT RED

LTL-16KY/16KYE YELLOW

LTL-16KE/16KEE HIGH EFFICIENCY RED

### FEATURES

- LOW POWER CONSUMPTION.
- HIGH EFFICIENCY.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- CMOS/MOS AND TTL COMPATIBLE.
- LONG LIFE-SOLID STATE RELIABILITY.
- WIDE VIEWING.
- LOW COST.

### DESCRIPTION

The Red source color devices are made with Gallium Arsenide Phosphide Red Light Emitting Diode.

The Bright Red source color devices are made with Gallium Phosphide on Gallium Phosphide Red Light Emitting Diode.

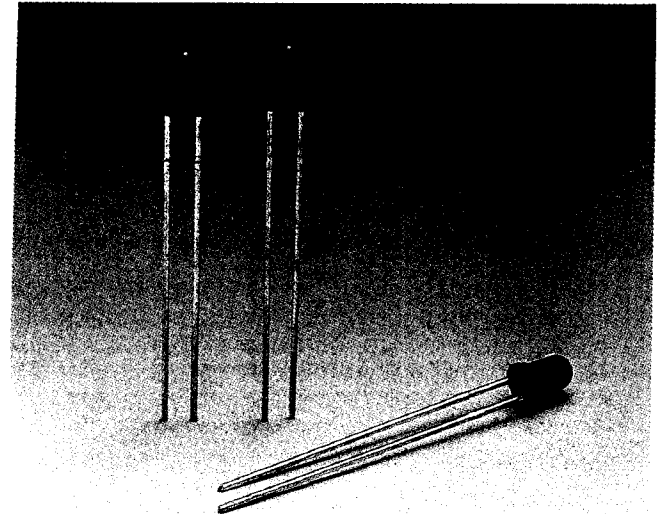
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide on Gallium Phosphide Green Light Emitting Diode.

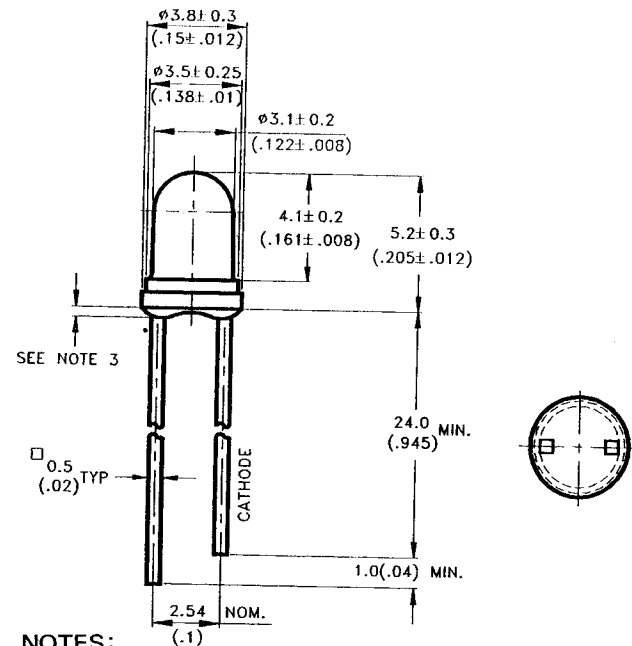
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

### DEVICES

PART NO LTL	LENS		SOURCE COLOR
	COLOR	DIFFUSION	
16KR 16KRE	Red	Diffused Transparent	Red
16KP 16KPE	Red	Diffused Transparent	Bright Red
16KE 16KEE	Red	Diffused Transparent	Hl. Eff. Red
16KG 16KGE	Green	Diffused Transparent	Green
16KY 16KYE	Yellow	Diffused Transparent	Yellow



### PACKAGE DIMENSIONS



#### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

ABSOLUTE MAXIMUM RATINGS AT  $T_A = 25^\circ\text{C}$

PARAMETER	RED	BRIGHT RED	GREEN	YELLOW	HI. EFF. RED ORANGE	UNIT
Power Dissipation	80	40	100	60	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	60	120	80	120	mA
Continuous Forward Current	40	15	30	20	30	mA
Derating Linear From $50^\circ\text{C}$	0.5	0.2	0.4	0.25	0.4	mA/ $^\circ\text{C}$
Reverse Voltage	5	5	5	5	5	V
Operating Temperature Range	$-55^\circ\text{C}$ to $+100^\circ\text{C}$					
Storage Temperature Range	$-55^\circ\text{C}$ to $+100^\circ\text{C}$					
Lead Soldering Temperature [1.6mm (0.063in) From Body]	$260^\circ\text{C}$ for 5 Seconds					

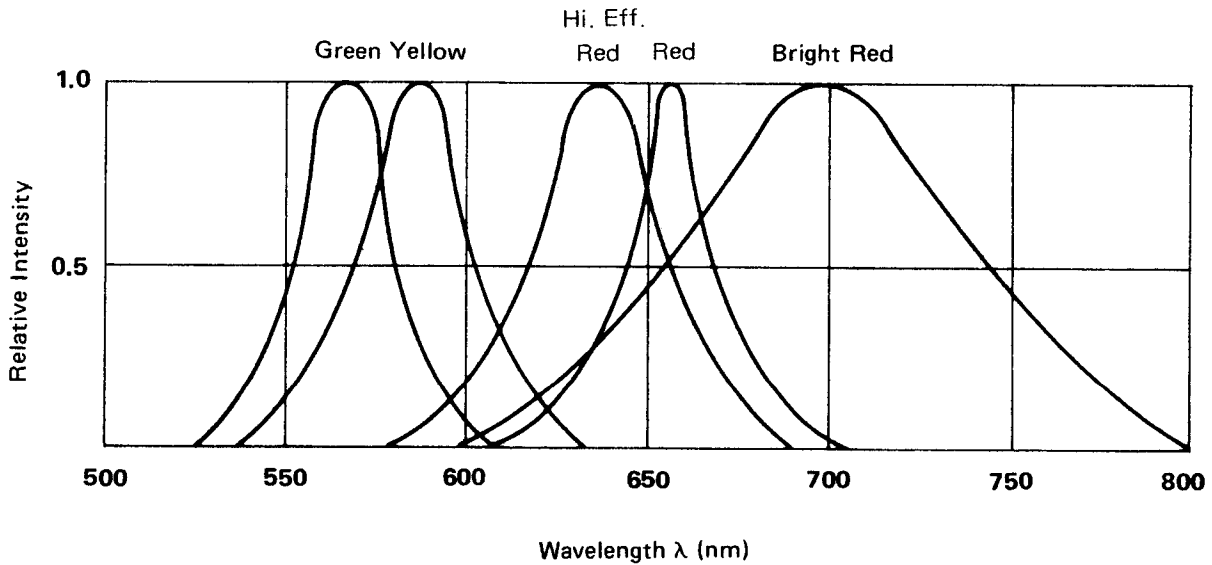


FIG. 1 RELATIVE INTENSITY VS. WAVELENGTH

LED LAMPS