

**T-1 (3mm) 0.5" LEADS WITH 0.1" SPACING**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL201R	Red (655 nm)	Diffused	0.8 mcd	76°	1.7V
LL202RT	Red (655 nm)	Transparent	2.0 mcd	30°	1.7V
LL221R	Hi-Eff. Red (635 nm)	Diffused	3.8 mcd	76°	2.0V
LL231G	Green (565 nm)	Diffused	3.8 mcd	76°	2.1V
LL232GT	Green (565 nm)	Transparent	8.0 mcd	30°	2.1V
LL251Y	Yellow (585 nm)	Diffused	3.8 mcd	76°	2.1V
LL252YT	Yellow (585 nm)	Transparent	8.0 mcd	30°	2.1V
LL291E	Orange (630 nm)	Diffused	3.8 mcd	76°	2.0V

**T-1 (3mm) 0.5" LEADS WITH 0.05" SPACING**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL209R	Red (655 nm)	Diffused	0.8 mcd	72°	1.7V
LL229H	Hi-Eff. Red (635 nm)	Diffused	3.8 mcd	72°	2.0V
LL239G	Green (565 nm)	Diffused	3.8 mcd	72°	2.1V
LL259Y	Yellow (585 nm)	Diffused	3.8 mcd	72°	2.1V
LL299E	Orange (630 nm)	Diffused	3.8 mcd	72°	2.0V

**T-1 (3mm) 1.0" LEADS WITH 0.1" SPACING**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL4201R	Red (655 nm)	Diffused	0.8 mcd	60°	1.7V
LL4202RT	Red (655 nm)	Transparent	4.0 mcd	45°	1.7V
LL4221H	Hi-Eff. Red (635 nm)	Diffused	5.6 mcd	60°	2.0V
LL4222HT	Hi-Eff. Red (635 nm)	Transparent	12.6 mcd	45°	2.0V
LL4231G	Green (565 nm)	Diffused	5.6 mcd	60°	2.1V
LL4232GT	Green (565 nm)	Transparent	12.6 mcd	45°	2.1V
LL4251Y	Yellow (585 nm)	Diffused	5.6 mcd	60°	2.1V
LL4252YT	Yellow (585 nm)	Transparent	12.6 mcd	45°	2.1V
LL4291E	Orange (630 nm)	Diffused	5.6 mcd	60°	2.0V
LL4292ET	Orange (630 nm)	Transparent	12.6 mcd	45°	2.0V

**T-1 1/4 (5mm) 0.5" LEADS WITH 0.1" SPACING**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL203R	Red (655 nm)	Diffused	0.8 mcd	54°	1.7V
LL204RT	Red (655 nm)	Transparent	2.0 mcd	32°	1.7V
LL223R	Hi-Eff. Red (635 nm)	Diffused	3.0 mcd	54°	2.0V
LL224HT	Hi-Eff. Red (635 nm)	Transparent	3.5 mcd	32°	2.0V
LL233G	Green (565 nm)	Diffused	3.0 mcd	54°	2.1V
LL234GT	Green (565 nm)	Transparent	3.5 mcd	32°	2.1V
LL253Y	Yellow (585 nm)	Diffused	3.0 mcd	54°	2.1V
LL254YT	Yellow (585 nm)	Transparent	3.5 mcd	32°	2.1V
LL293E	Orange (630 nm)	Diffused	3.0 mcd	54°	2.0V
LL294ET	Orange (630 nm)	Transparent	3.5 mcd	32°	2.0V

**T-1 1/4 (5mm) 0.866" LEADS WITH 0.1" SPACING—HIGH INTENSITY**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL307H	Hi-Eff. Red (635 nm)	Diffused	19.0 mcd	50°	2.0V
LL307HT	Hi-Eff. Red (635 nm)	Transparent	30.3 mcd	40°	2.0V
LL307G	Green (565 nm)	Diffused	12.6 mcd	50°	2.1V
LL307GT	Green (565 nm)	Transparent	29.0 mcd	40°	2.1V
LL307Y	Yellow (585 nm)	Diffused	12.6 mcd	50°	2.1V
LL307E	Orange (630 nm)	Diffused	19.0 mcd	50°	2.0V

**T-1 1/4 (5mm) 1.0" LEADS WITH 0.1" SPACING—HIGH INTENSITY**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL4203R	Red (655 nm)	Diffused	1.1 mcd	36°	1.7V
LL4204RT	Red (655 nm)	Transparent	5.5 mcd	16°	1.7V
LL4223R	Hi-Eff. Red (635 nm)	Diffused	8.7 mcd	36°	2.0V
LL4224RT	Hi-Eff. Red (635 nm)	Transparent	40.0 mcd	16°	2.0V
LL4233G	Green (565 nm)	Diffused	8.7 mcd	36°	2.1V
LL4234GT	Green (565 nm)	Transparent	40.0 mcd	16°	2.1V
LL4253Y	Yellow (585 nm)	Diffused	8.7 mcd	36°	2.1V
LL4254YT	Yellow (585 nm)	Transparent	40.0 mcd	16°	2.1V
LL4293E	Orange (630 nm)	Diffused	8.7 mcd	36°	2.0V
LL4294ET	Orange (630 nm)	Transparent	40.0 mcd	16°	2.0V

**T-1 1/4 (5mm) 1.0" LEADS WITH 0.1" SPACING—LOW PROFILE**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL5203R	Red (655 nm)	Diffused	0.5 mcd	64°	1.7V
LL5223H	Hi-Eff. Red (635 nm)	Diffused	4.0 mcd	64°	2.0V
LL5233G	Green (565 nm)	Diffused	4.0 mcd	64°	2.1V
LL5253Y	Yellow (585 nm)	Diffused	4.0 mcd	64°	2.1V

**T-1 1/4 (5mm) 1.0" LEADS WITH 0.1" SPACING—ULTRA-BRIGHT**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL353RC	GaAlAs Red (660 nm)	Water Clear	1000 mcd	20°	1.8V

**T-1 1/4 (5mm) 0.866" LEADS WITH 0.1" SPACING—ULTRA-BRIGHT**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL307R	GaAlAs Red (660 nm)	Diffused	38 mcd	50°	1.8V
LL307RT	GaAlAs Red (660 nm)	Transparent	58 mcd	40°	1.8V
LL307RC	GaAlAs Red (660 nm)	Water Clear	58 mcd	40°	1.8V
LL4263R	GaAlAs Red (660 nm)	Diffused	50 mcd	40°	1.8V
LL4264RT4	GaAlAs Red (660 nm)	Transparent	270 mcd	16°	1.8V
LL4264RT3	GaAlAs Red (660 nm)	Transparent	220 mcd	16°	1.8V
LL4264RT2	GaAlAs Red (660 nm)	Transparent	150 mcd	16°	1.8V
LL4268RC4	GaAlAs Red (660 nm)	Water Clear	270 mcd	16°	1.8V
LL4268RC3	GaAlAs Red (660 nm)	Water Clear	220 mcd	16°	1.8V
LL4268RC2	GaAlAs Red (660 nm)	Water Clear	150 mcd	16°	1.8V

**T-1 (3mm) 1.0" LEADS WITH 0.1" SPACING—LOW CURRENT**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 2mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @2mA
LL4221NLC	Hi-Eff. Red (635 nm)	Diffused	1.8 mcd	45°	1.8V

**T-1 1/4 (5mm) 0.866" LEADS WITH 0.1" SPACING—LOW CURRENT**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 2mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @2mA
LL307ELC	Hi-Eff. Red (635 nm)	Diffused	2.0 mcd	50°	1.8V

**RECTANGULAR BARS**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL3203R	Red (655 nm)	Diffused	0.2 mcd	130°	1.7V
LL3223H	Hi-Eff. Red (635 nm)	Diffused	1.7 mcd	130°	2.0V
LL3233G	Green (565 nm)	Diffused	1.7 mcd	130°	2.1V
LL3253Y	Yellow (585 nm)	Diffused	1.7 mcd	130°	2.1V
LL3293E	Orange (630 nm)	Diffused	1.7 mcd	130°	2.0V

**SUBMINIATURE LEADS WITH AXIAL LEADS**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL93EC	Orange (630 nm)	Water Clear	12.5 mcd	34°	2.1V
LL93GC	Green (565 nm)	Water Clear	15.0 mcd	34°	2.1V
LL93YC	Yellow (585 nm)	Water Clear	8.5 mcd	34°	2.1V

**T-1 1/4 BI-POLAR INDICATORS**

Part No.	Color	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL222RG	Red/Green	White Diffused	3.0/1.5 mcd	54°	1.9/2.0V

**T-1 1/4 DUAL COLOR INDICATORS**

Part No.	Color	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2°*	V <sub>f</sub> Typ. @20mA
LL232RG	Red/Green	White Diffused	2.2/5.0 mcd	54°	2.1/2.2V
LL232EG	Orange/Green	White Diffused	5.0/5.0 mcd	54°	2.0/2.1V

\*2θ 1/2° is the off axis angle at which the luminous intensity is half the axial luminous intensity.

\*\*Peak Emission wavelength (nm)



**LOGIC STATUS INDICATORS**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2*	V <sub>f</sub> Typ. @ 20mA	Package Style
LL503-01R	Red (655 nm)	Diffused	0.8 mcd	60°	1.7V	M
LL523-01H	Hi-Eff. Red (635 nm)	Diffused	5.6 mcd	60°	2.0V	M
LL533-01G	Green (565 nm)	Diffused	5.6 mcd	60°	2.1V	M
LL553-01Y	Yellow (585 nm)	Diffused	5.6 mcd	60°	2.1V	M
LL503-11R	Red (655 nm)	Diffused	0.8 mcd	60°	1.7V	N
LL523-11H	Hi-Eff. Red (635 nm)	Diffused	5.6 mcd	60°	2.0V	N
LL533-11G	Green (565 nm)	Diffused	5.6 mcd	60°	2.1V	N
LL553-11Y	Yellow (585 nm)	Diffused	5.6 mcd	60°	2.1V	N
LL503-04R	Red (655 nm)	Diffused	0.8 mcd	60°	1.7V	O
LL523-04H	Hi-Eff. Red (635 nm)	Diffused	5.6 mcd	60°	2.0V	O
LL533-04G	Green (565 nm)	Diffused	5.6 mcd	60°	2.1V	O
LL553-04Y	Yellow (585 nm)	Diffused	5.6 mcd	60°	2.1V	O
LL503-14R	Red (655 nm)	Diffused	0.8 mcd	60°	1.7V	P
LL523-14H	Hi-Eff. Red (635 nm)	Diffused	5.6 mcd	60°	2.0V	P
LL533-14G	Green (565 nm)	Diffused	5.6 mcd	60°	2.1V	P
LL553-14Y	Yellow (585 nm)	Diffused	5.6 mcd	60°	2.1V	P

**STANDARD BAR GRAPHS†**

Part No.	Color**	Lens	Luminous Intensity I <sub>v</sub> Typ. @ 10mA	Typical Viewing Angle 2θ 1/2*	V <sub>f</sub> Typ. @ 20mA	Package Style
LL7164R	Red (655 nm)	White Diffused	0.5 mcd	100°	1.7V	Q
LL7164H	Hi-Eff. Red (635 nm)	Diffused	2.0 mcd	100°	2.0V	Q
LL7164G	Green (565 nm)	White Diffused	2.0 mcd	100°	2.1V	Q
LL7164Y	Yellow (585 nm)	White Diffused	2.0 mcd	100°	2.1V	Q
LL7164E	Orange (630 nm)	White Diffused	2.0 mcd	100°	2.0V	Q

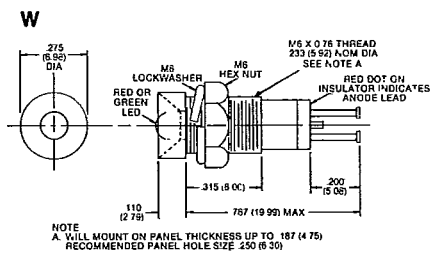
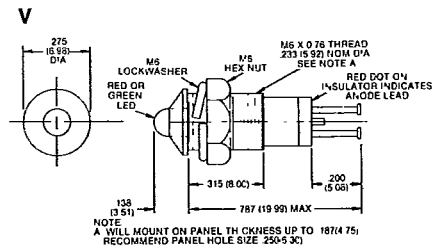
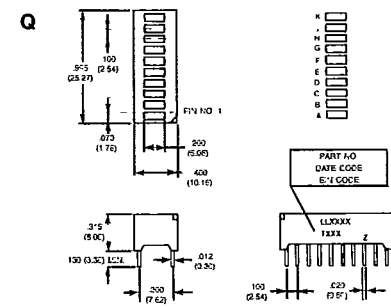
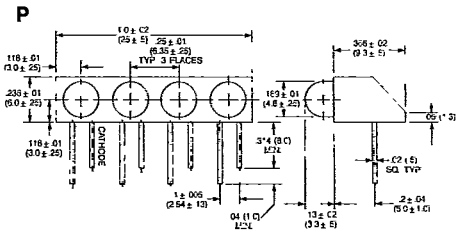
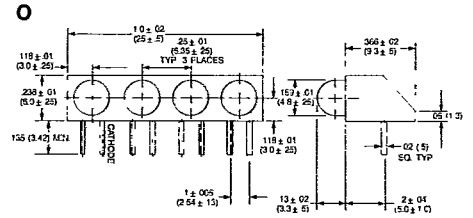
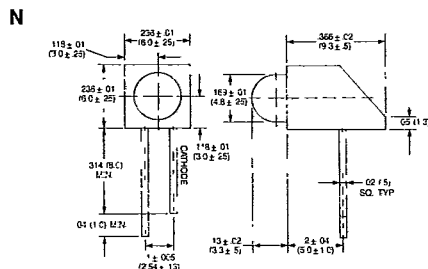
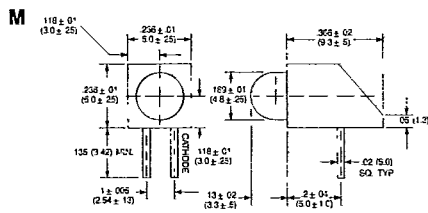
\*2θ 1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity  
\*\*Peak Emission wave/length (nm)

†Mixed color bar graphs are available. Contact factory with requirements.

**SOLID STATE INDICATOR ASSEMBLIES**

Part No.	Color	Lens	Luminous Intensity Min. (mcd) Typ.	Housing Type	Package Style
BD361R	GaP Red	Red Diffused	0.5 @ 10mA 1.0 @ 20mA	Chrome-plated	V
BD361G	GaP Green	Green Diffused	0.5 @ 10mA 1.0 @ 20mA	Chrome-plated	V
BD361RK	GaP Red	Red Diffused	0.5 @ 10mA 1.0 @ 20mA	Black anodized	V
BD361GK	GaP Green	Green Diffused	0.5 @ 10mA 1.0 @ 20mA	Black anodized	V
BD362R	GaP Red	Red Diffused	1.5 @ 10mA 3.0 @ 20mA	Chrome-plated	W
BD362G	GaP Green	Green Diffused	1.5 @ 10mA 3.0 @ 20mA	Chrome-plated	W
BD362RK	GaP Red	Red Diffused	0.5 @ 10mA 1.0 @ 20mA	Black anodized	W
BD362GK	GaP Green	Green Diffused	0.5 @ 10mA 1.0 @ 20mA	Black anodized	W

**PACKAGE DIMENSIONS**



- NOTES:
- All dimensions are in inches (millimeters).
  - Tolerance is ±.010" (0.25mm) unless otherwise noted
  - Protruded resin under flange is .059" (1.5mm) max.
  - Lead spacing is measured where the leads emerge from the package.
  - Specifications are subject to change without notice.