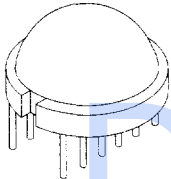




# Selection Guide

## • Big LED Lamps

| Outline  | Device                         |            | Description          |          | Luminous Intensity Iv Typ. @60mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|--|--------------------------------|------------|----------------------|----------|----------------------------------|---|---------------|----------|
|  | Package                        | Part No.   | Color** (λ P)        | Lens     |                                  |   |               |          |
|  | 12 Pin DIP.<br>Centers<br>20 φ | L TJ-811HR | Hi. Eff Red (635 nm) | Diffused | 25.0 mcd                         | 180 °                                   | 2.0V          | 8-19     |
|  |                                | L TJ-811G  | Green (565 nm)       | Diffused | 25.0 mcd                         | 180 °                                   | 2.1V          |          |
|  |                                | L TJ-811Y  | Yellow (585 nm)      | Diffused | 25.0 mcd                         | 180 °                                   | 2.1V          |          |

## • Low Current LED Lamps


| Outline   | Device                                |              | Description          |          | Luminous Intensity Iv Typ. @2mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|---|---------------------------------------|--------------|----------------------|----------|---------------------------------|---|---------------|----------|
|   | Package                               | Part No.     | Color** (λ P)        | Lens     |                                 |   |               |          |
|   | T-1<br>Standard<br>1" Lead<br>3 φ     | L TL-4221NLC | Hi. Eff Red (635 nm) | Diffused | 2.5 mcd                         | 60 °                                    | 1.7V          | 8-23     |
|   |                                       | L TL-4231NLC | Green (565 nm)       | Diffused | 1.1 mcd                         | 60 °                                    | 1.9V          |          |
|   |                                       | L TL-4251NLC | Yellow (585 nm)      | Diffused | 1.1 mcd                         | 60 °                                    | 1.8V          |          |
|  | T-1 3/4<br>Standard<br>1" Lead<br>5 φ | L TL-307ELC  | Hi. Eff Red (635 nm) | Diffused | 3.7 mcd                         | 50 °                                    | 1.7V          | 8-23     |
|   |                                       | L TL-307GLC  | Green (565 nm)       | Diffused | 3.7 mcd                         | 50 °                                    | 1.9V          |          |
|   |                                       | L TL-307YLC  | Yellow (585 nm)      | Diffused | 3.7 mcd                         | 50 °                                    | 1.8V          |          |

### Notes:


- \*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- \*\* Peak Emission wavelength (nm).

# Selection Guide

## • Side Looking Lamp

| Outline   | Device            |           | Description   |             | Luminous Intensity Iv Typ. @10mA | Vf Typ. @20mA | Page No. |
|---|-------------------|-----------|---------------|-------------|----------------------------------|---------------|----------|
|   | Package           | Part No.  | Color (λ P)   | Lens        |                                  |               |          |
|  | Side Looking Lamp | LTL-96RGK | Green (565nm) | Water Clear | 10                               | 4.4 V         | 8-27     |

## • Standard LED Lamps

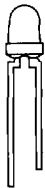

| Outline  | Device                         |           | Description           |             | Luminous Intensity Iv Typ. @10mA | Typical Viewing Angle 2θ 1/2 * | Vf Typ. @20mA | Page No. |
|--|--------------------------------|-----------|-----------------------|-------------|----------------------------------|--------------------------------|---------------|----------|
|  | Package                        | Part No.  | Color (λ P)           | Lens        |                                  |                                |               |          |
|  | T-1 Standard<br>1" Lead<br>3 φ | LTL-1CHA  | Amber<br>(610nm)      | Diffusion   | 12.6 mcd                         | 60 °                           | 2.1V          | 8-30     |
|  |                                | LTL-1CHAE |                       | Transparent | 29 mcd                           | 45 °                           |               |          |
|  |                                | LTL-1CHE  | Hi.Eff.Red<br>(630nm) | Diffusion   | 19 mcd                           | 60 °                           | 2.0V          |          |
|  |                                | LTL-1CHEE |                       | Transparent | 19 mcd                           | 45 °                           |               |          |
|  |                                | LTL-1CHG  | Green<br>(565nm)      | Diffusion   | 12.6mcd                          | 60 °                           | 2.1V          |          |
|  |                                | LTL-1CHGE |                       | Transparent | 40 mcd                           | 45 °                           |               |          |
|  |                                | LTL-1CHP  | Bright Red<br>(697nm) | Diffusion   | 4.4 mcd                          | 60 °                           | 2.1V          |          |
|  |                                | LTL-1CHPE |                       | Transparent | 8.7 mcd                          | 45 °                           |               |          |
|  |                                | LTL-1CHR  | Red<br>(655nm)        | Diffusion   | 1.1 mcd                          | 60 °                           | 1.7V          |          |
|  |                                | LTL-1CHRE |                       | Transparent | 3.7 mcd                          | 45 °                           |               |          |
|  |                                | LTL-1CHY  | Yellow<br>(585m)      | Diffusion   | 8.7 mcd                          | 60 °                           | 2.1V          |          |
|  |                                | LTL-1CHYE |                       | Transparent | 40 mcd                           | 45 °                           |               |          |

**Notes:**

- \*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- \*\* Peak Emission wavelength (nm).

# Selection Guide

## • Standard LED Lamps

| Outline   | Device                                     |           | Description             |             | Luminous Intensity Iv Typ. @10mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|---|--|-----------|-------------------------|-------------|----------------------------------|---|---------------|----------|
|   | Package                                    | Part No.  | Color** ( $\lambda P$ ) | Lens        |                                  |   |               |          |
|    | T-1<br>Standard<br>1" Lead<br>3 $\phi$     | LTL-4201N | Red<br>(655 nm)         | Diffused    | 1.1 mcd                          | 60°                                     | 1.7V          | 8-36     |
|   |  | LTL-4206N |                         | Water Clear | 2.5 mcd                          | 45°                                     |               |          |
|   |  | LTL-4211N | Bright Red<br>(697 nm)  | Diffused    | 2.9 mcd                          | 60°                                     | 2.1V          |          |
|   |  | LTL-4212N |                         | Transparent | 5.6 mcd                          | 45°                                     |               |          |
|   |  | LTL-4221N | Hi. Eff Red<br>(635nm)  | Diffused    | 8.7 mcd                          | 60°                                     | 2.0V          |          |
|   |  | LTL-4222N |                         | Transparent | 29 mcd                           | 45°                                     |               |          |
|   |  | LTL-4231N | Green<br>(565 nm)       | Diffused    | 12.6 mcd                         | 60°                                     | 2.1V          |          |
|   |  | LTL-4232N |                         | Transparent | 40 mcd                           | 45°                                     |               |          |
|   |  | LTL-4236N |                         | Water Clear | 40 mcd                           | 45°                                     |               |          |
|   |  | LTL-4251N | Yellow<br>(585 nm)      | Diffused    | 5.6 mcd                          | 60°                                     | 2.1V          |          |
|   |  | LTL-4252N |                         | Transparent | 19 mcd                           | 45°                                     |               |          |
|   |  | LTL-4256N |                         | Water Clear | 19 mcd                           | 45°                                     |               |          |
|   |  | LTL-4291N | Orange<br>(630 nm)      | Diffused    | 8.7 mcd                          | 60°                                     | 2.0V          |          |
|   |  | LTL-4292N |                         | Transparent | 19 mcd                           | 45°                                     |               |          |
|   |  | LTL-4296N |                         | Water Clear | 19 mcd                           | 45°                                     |               |          |
|  | T-1 3/4<br>Standard<br>1" Lead<br>5 $\phi$ | LTL-307R  | Red<br>(655 nm)         | Diffused    | 1.7 mcd                          | 50°                                     | 1.7V          | 8-42     |
|   |  | LTL-307RE |                         | Transparent | 3.7 mcd                          | 40°                                     |               |          |
|   |  | LTL-307P  | Bright Red<br>(697 nm)  | Diffused    | 5.6 mcd                          | 50°                                     | 2.1V          |          |
|   |  | LTL-307PE |                         | Transparent | 12.6 mcd                         | 40°                                     |               |          |
|   |  | LTL-307E  | Hi. Eff Red<br>(635nm)  | Diffused    | 19.0 mcd                         | 50°                                     | 2.0V          |          |
|   |  | LTL-307EE |                         | Transparent | 40.0 mcd                         | 40°                                     |               |          |
|   |  | LTL-307G  | Green<br>(565 nm)       | Diffused    | 19.0 mcd                         | 50°                                     | 2.1V          |          |
|   |  | LTL-307GE |                         | Transparent | 40.0 mcd                         | 40°                                     |               |          |
|   |  | LTL-307Y  | Yellow<br>(585 nm)      | Diffused    | 29.0 mcd                         | 50°                                     | 2.1V          |          |
|   |  | LTL-307YE |                         | Transparent | 40.0 mcd                         | 40°                                     |               |          |

Notes:




\*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

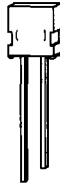
LED LAMPS

# Selection Guide

## • Standard LED Lamps

| Outline  | Device                                    |           | Description          |          | Luminous Intensity Iv Typ. @10mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|--|---|-----------|----------------------|----------|----------------------------------|---|---------------|----------|
|  | Package                                   | Part No.  | Color** (λ P)        | Lens     |                                  |   |               |          |
|   | 2.0mm x 5.0mm Rectangular Bars Flangeless | LTL-433P  | Bright Red (697 nm)  | Diffused | 1.1 mcd                          | 140 °                                   | 2.1V          | 8-48     |
|  |   | LTL-433G  | Green (565 nm)       | Diffused | 3.7 mcd                          | 140 °                                   | 2.1V          |          |
|  |   | LTL-433Y  | Yellow (585 nm)      | Diffused | 3.7 mcd                          | 140 °                                   | 2.1V          |          |
|  |   | LTL-433EA | Orange (630 nm)      | Diffused | 3.7 mcd                          | 140 °                                   | 2.0V          |          |
|   | 1.0mm x 5.0mm Rectangular Bars            | LTL-3218A | Bright Red (697 nm)  | Diffused | 1.1 mcd                          | 106 °                                   | 2.1V          | 8-52     |
|  |   | LTL-3238A | Green (565 nm)       | Diffused | 3.7 mcd                          | 106 °                                   | 2.1V          |          |
|  |   | LTL-3258A | Yellow (585 nm)      | Diffused | 2.5 mcd                          | 106 °                                   | 2.1V          |          |
|  |   | LTL-3278A | Amber (600 nm)       | Diffused | 2.5 mcd                          | 106 °                                   | 2.1V          |          |
|  | 2.5mm x 7.1mm Rectangular Bars            | LTL-3213A | Bright Red (697 nm)  | Diffused | 0.7 mcd                          | 130 °                                   | 2.0V          | 8-56     |
|  |   | LTL-3223A | Hi. Eff Red (635 nm) | Diffused | 6.3 mcd @ 20mA                   | 130 °                                   | 2.1V          |          |
|  |   | LTL-3233A | Green (565 nm)       | Diffused | 6.3 mcd @ 20mA                   | 130 °                                   | 2.1V          |          |
|  |   | LTL-3253A | Yellow (585 nm)      | Diffused | 1.7 mcd                          | 130 °                                   | 2.1V          |          |
|  |   | LTL-3293A | Orange (630 nm)      | Diffused | 8.2 mcd @ 20mA                   | 130 °                                   | 2.0V          |          |

## • Special LED Lamps

| Outline   | Device                                       |             | Description         |          | Luminous Intensity Iv Typ. @20mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|---|--|-------------|---------------------|----------|----------------------------------|---|---------------|----------|
|   | Package                                      | Part No.    | Color** (λ P)       | Lens     |                                  |   |               |          |
|  | 3.2mm x 5.6mm Reflector Cap Rectangular Bars | LTL-33221AA | Hi.Eff.Red (635 nm) | Diffused | 5.6 mcd                          | 100 °                                   | 2.0V          | 8-60     |
|   |  | LTL-33231AA | Green (565 nm)      | Diffused | 5.6 mcd                          | 100 °                                   | 2.1V          |          |
|   |  | LTL-33251AA | Yellow (585 nm)     | Diffused | 8.7 mcd                          | 100 °                                   | 2.1V          |          |




Notes:

\*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

# Selection Guide

## • Special LED Lamps

| Outline   | Device                          |           | Description               |             | Luminous Intensity Iv Typ. @10mA | Typical Viewing Angle $2\theta_{1/2}^*$ | Vf Typ. @20mA | Page No. |
|---|---------------------------------|-----------|---------------------------|-------------|----------------------------------|---|---------------|----------|
|   | Package                         | Part No.  | Color**<br>( $\lambda$ P) | Lens        |                                  |   |               |          |
|    | T-1 3/4 Low Profile<br>5 $\phi$ | LTL-5224  | Hi. Eff Red<br>(635 nm)   | Transparent | 29 mcd                           | 44 °                                    | 2.0V          | 8-64     |
|   |                                 | LTL-5234  | Green<br>(565 nm)         | Transparent | 40 mcd                           | 44 °                                    | 2.1V          |          |
|   |                                 | LTL-5254  | Yellow<br>(585 nm)        | Transparent | 12.6 mcd                         | 44 °                                    | 2.1V          |          |
|    | Dot point<br>1.8 $\phi$         | LTL-7D9P  | Birght Red<br>(697 nm)    | Diffused    | 3.7 mcd                          | 38 °                                    | 2.1V          | 8-68     |
|   |                                 | LTL-7D9E  | Hi. Eff Red<br>(635 nm)   | Diffused    | 12.6 mcd                         | 38 °                                    | 2.0V          |          |
|   |                                 | LTL-7D9L  | Green<br>(565 nm)         | Diffused    | 8.7 mcd                          | 38 °                                    | 2.1V          |          |
|   |                                 | LTL-7D9Y  | Yellow<br>(585 nm)        | Diffused    | 12.6 mcd                         | 38 °                                    | 2.1V          |          |
|  | Panel Dot<br>Indicators         | LTL-1214A | Bright Red<br>(697 nm)    | Diffused    | 1.1 mcd                          | 120 °                                   | 2.1V          | 8-72     |
|   |                                 | LTL-1234A | Green<br>(565 nm)         | Diffused    | 1.7 mcd                          | 120 °                                   | 2.1V          |          |
|   |                                 | LTL-1254A | Yellow<br>(585 nm)        | Diffused    | 3.7 mcd                          | 120 °                                   | 2.1V          |          |
|   |                                 | LTL-1294A | Orange<br>(630 nm)        | Diffused    | 2.5 mcd                          | 120 °                                   | 2.0V          |          |

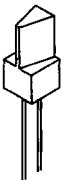

### Notes:

\*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

# Selection Guide

## • Special LED Lamps

| Outline  | Device                             |            | Description               |          | Luminous Intensity<br>Iv Typ.<br>@10mA | Typical Viewing Angle<br>2 $\theta$ 1/2 * | Vf Typ.<br>@20mA | Page No. |
|--|------------------------------------|------------|---------------------------|----------|--|---|------------------|----------|
|  | Package                            | Part No.   | Color**<br>( $\lambda$ P) | Lens     |  |   |                  |          |
|                                 | Arrow Head Pointers                | LTL-8212A  | Birght Red<br>(697 nm)    | Diffused | 0.7 mcd                                | 100 °                                     | 2.1V             | 8-76     |
|  |                                    | LTL-8222A  | Hi. Eff. Red<br>(635 nm)  | Diffused | 2.5 mcd                                | 100 °                                     | 2.0V             |          |
|  |                                    | LTL-8232A  | Green<br>(565 nm)         | Diffused | 2.5 mcd                                | 100 °                                     | 2.1V             |          |
|  | Cylindrical<br>1" Lead<br>3 $\phi$ | LTL-2211AT | Bright Red<br>(697 nm)    | Diffused | 1.1 mcd                                | 180 °                                     | 2.1V             | 8-80     |
|  |                                    | LTL-2231AT | Green<br>(565 nm)         | Diffused | 3.7 mcd                                | 180 °                                     | 2.1V             |          |
|  |                                    | LTL-2251AT | Yellow<br>(585 nm)        | Diffused | 2.5 mcd                                | 180 °                                     | 2.1V             |          |
|  |                                    | LTL-2291AT | Orange<br>(630 nm)        | Diffused | 2.5 mcd                                | 180 °                                     | 2.0V             |          |





Notes:

\*  $\theta$  1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

# Selection Guide

## • Dual Color LED Lamp

| Outline   | Device                              |           | Description                      |                   | Luminous Intensity<br>I <sub>v</sub> Typ.<br>@20mA | Typical Viewing Angle<br>2θ 1/2 * | V <sub>F</sub> Typ.<br>@20mA | Page No. |
|---|-------------------------------------|-----------|----------------------------------|-------------------|--|-----------------------------------|------------------------------|----------|
|   | Package                             | Part No.  | Color**<br>(λ P)                 | Lens              |  |                                   |                              |          |
|    | T-1<br>Bi-Polar<br>Standard<br>Lamp | LTL-10CEJ | Hi. Eff. Red<br>(635 nm)<br>2pcs | White<br>Diffused | 12.6 mcd   | 72 °                              | 2.0V                         | 8-84     |
|   |                                     | LTL-10CGJ | Green<br>(565 nm)<br>2pcs        | White<br>Diffused | 12.6 mcd   | 72 °                              | 2.1V                         | 8-87     |
|   |                                     | LTL-10CYJ | Yellow<br>(585 nm)<br>2pcs       | White<br>Diffused | 8.7 mcd  | 72 °                              | 2.1V                         | 8-90     |
|    | T-1<br>Bi-Color<br>Standard<br>Lamp | LTL-10CDJ | Green                            | White<br>Diffused | 12.6 mcd   | 72 °                              | 2.1V                         | 8-93     |
|   |                                     |           | Yellow                           |                   | 8.7 mcd  |                                   | 2.1V                         |          |
|   |                                     | LTL-10CHJ | Green                            | White<br>Diffused | 12.6 mcd   | 72 °                              | 2.1V                         | 8-96     |
|   |                                     |           | Orange                           |                   | 8.7 mcd  |                                   | 2.0V                         |          |
|   | T-1<br>Bi-Polar<br>Standard<br>Lamp | LTL-14CYJ | Yellow<br>(585 nm)<br>2pcs       | White<br>Diffused | 8.7 mcd  | 80 °                              | 2.1V                         | 8-99     |
|  | T-1<br>Bi-Color<br>Standard<br>Lamp | LTL-14CDJ | Green                            | White<br>Diffused | 12.6 mcd   | 80 °                              | 2.1V                         | 8-102    |
|   |                                     |           | Yellow                           |                   | 8.7 mcd  |                                   | 2.1V                         |          |
|   |                                     | LTL-14CHJ | Green                            | White<br>Diffused | 4.8 mcd  | 200 °                             | 2.1V                         | 8-105    |
|   |                                     |           | Orange                           |                   | 4.8 mcd  |                                   | 2.1V                         |          |

**Notes:**




\* θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

LED LAMPS

# Selection Guide

## • Dual Color LED Lamp

| Outline   | Device                                  |                           | Description                      |                   | Luminous Intensity Iv Typ. @20mA | Typical Viewing Angle $2\theta_{1/2}^*$ | V <sub>F</sub> Typ. @20mA | Page No. |
|---|---|---------------------------|----------------------------------|-------------------|----------------------------------|---|---------------------------|----------|
|   | Package                                 | Part No.                  | Color**<br>( $\lambda$ P)        | Lens              |                                  |   |                           |          |
|    | T-1 3/4<br>Bi-Polar<br>Standard<br>Lamp | LTL-298EJ                 | Hi. Eff. Red<br>(635 nm)<br>2pcs | White<br>Diffused | 19 mcd                           | 50 °                                    | 2.0V                      | 8-108    |
|   |   | LTL-298GJ                 | Green<br>(565 nm)<br>2pcs        | White<br>Diffused | 19 mcd                           | 50 °                                    | 2.1V                      | 8-111    |
|   |   | LTL-298YJ                 | Yellow<br>(585 nm)<br>2pcs       | White<br>Diffused | 12.6 mcd                         | 50 °                                    | 2.1V                      | 8-114    |
|   | T-1 3/4<br>Bi-Color<br>Standard<br>Lamp | LTL-298DJ                 | Green                            | White<br>Diffused | 19 mcd                           | 50 °                                    | 2.1V                      | 8-117    |
|   |   |                           | Yellow                           |                   | 12.6 mcd                         |   | 2.1V                      |          |
|   |   | LTL-298VJ                 | Green                            | White<br>Diffused | 19 mcd                           | 50 °                                    | 2.1V                      | 8-120    |
|   |   |                           | Red                              |                   | 2.5 mcd                          |   | 1.7V                      |          |
|   |   | LTL-298WJ                 | Green                            | White<br>Diffused | 19 mcd                           | 50 °                                    | 2.1V                      | 8-123    |
|   |   |                           | Orange                           |                   | 19 mcd                           |   | 2.0V                      |          |
|   |   | LTL-293SJ                 | Green                            | White<br>Diffused | 40 mcd                           | 60 °                                    | 2.1V                      | 8-126    |
|   |   |                           | GaAlAs<br>Red                    |                   | 90 mcd                           |   | 1.8V                      |          |
|  | T-1 3/4<br>Dual Color<br>Indicator      | LTL-30EDJ                 | Green                            | White<br>Diffused | 29 mcd                           | 30 °                                    | 2.1V                      | 8-129    |
|   |   |                           | Yellow                           |                   | 29 mcd                           |   | 2.1V                      |          |
|   |   | LTL-30EFJ                 | Green                            | White<br>Diffused | 29 mcd                           | 30 °                                    | 2.1V                      | 8-132    |
|   |   |                           | Bright Red                       |                   | 3.7 mcd                          |   | 2.1V                      |          |
|   |   | LTL-30EHJ                 | Green                            | White<br>Diffused | 29 mcd                           | 30 °                                    | 2.1V                      | 8-135    |
|   |   |                           | Orange                           |                   | 40 mcd                           |   | 2.0V                      |          |
| T-1 3/4<br>Bi-Polar<br>Indicator  | LTL-30EG                                | Green<br>(565 nm)<br>2pcs | Green<br>Diffused                | 29 mcd            | 30 °                             | 2.1V                                    | 8-138                     |          |

### Notes:




\*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).



# Selection Guide

## • Dual Color LED Lamp

| Outline   | Device                                |           | Description                |                | Luminous Intensity Iv Typ. @20mA | Typical Viewing Angle $2\theta_{1/2}^*$ | V <sub>F</sub> Typ. @20mA | Page No. |
|---|---------------------------------------|-----------|----------------------------|----------------|----------------------------------|---|---------------------------|----------|
|   | Package                               | Part No.  | Color**<br>( $\lambda_P$ ) | Lens           |                                  |   |                           |          |
|    | Dual Color Indicator<br>2.0mm x 5.0mm | LTL-58EHJ | Green                      | White Diffused | 8.7 mcd                          | 100 °                                   | 2.1V                      | 8-141    |
|   |                                       |           | Orange                     |                | 5.6 mcd                          |   | 2.0V                      |          |
|   |                                       | LTL-58EFJ | Green                      | White Diffused | 8.7 mcd                          | 100 °                                   | 2.1V                      | 8-144    |
|   |                                       |           | Bright Red                 |                | 1.1 mcd                          |   | 2.1V                      |          |
|    | Dual Color Indicator<br>1.0mm x 5.0mm | LTL-7AEFJ | Green                      | White Diffused | 5.6 mcd                          | 120 °                                   | 2.1V                      | 8-147    |
|   |                                       |           | Bright Red                 |                | 0.8 mcd                          |   | 2.1V                      |          |
|   |                                       | LTL-7AEDJ | Green                      | White Diffused | 5.6 mcd                          | 120 °                                   | 2.1V                      | 8-150    |
|   |                                       |           | Yellow                     |                | 5.6 mcd                          |   | 2.1V                      |          |
|  | Dual Color Indicator<br>3.0mm x 5.0mm | LTL-7BEHJ | Green                      | White Diffused | 5.6 mcd                          | 100 °                                   | 2.1V                      | 8-153    |
|   |                                       |           | Orange                     |                | 5.6 mcd                          |   | 2.0V                      |          |

**Notes:**

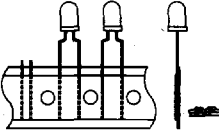
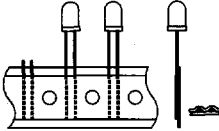
\*  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).

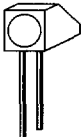
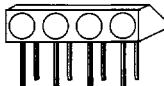
# Selection Guide

## • Tape And Reel

### Raidial Tape And Reel

| Outline   | Option Code                                  | Description  | Page No. |
|---|--|--|----------|
|  | .001<br>.011<br>.021<br>.031<br>.041<br>.051 | 5mm(0.197")Preformed Leads With<br>-001 : 2.5mm(0.1")<br>-011 : 4.0mm(0.157")<br>-021 : 7.5mm(0.295")<br>-031 : 10.0mm(0.394")<br>-041 : 6.5mm(0.256")<br>-051 : 5.8mm(0.228")<br>from Seating Plane to Lamp Bottom. | 8-156    |
|  | .002<br>.012<br>.022                         | 2.54mm(0.1")Straight Leads With<br>-002 : 18mm(0.709")<br>-012 : 22mm(0.866")<br>-022 : 26mm(1.024")<br>from Feed Hole to Lamp Bottom.   | 8-156    |

## • LED Circuit Board And Panel Mounted Indicators

| Outline   | Device   |            | Description     |          | Luminous Intensity Iv Typ. @10mA | Typical Viewing Angle 2θ 1/2* | Vf Typ. @20mA | Page No. |
|---|--|------------|-----------------|----------|----------------------------------|-------------------------------|---------------|----------|
|   | Package  | Part No.   | Color** (λ P)   | Lens     |                                  |                               |               |          |
|  | Logic status Indicators Holder with LTL-10200W Lamp series | LTL-503-11 | Red (655 nm)    | Diffused | 1.1 mcd                          | 60 °                          | 1.7V          | 8-160    |
|   |  | LTL-533-11 | Green (565 nm)  | Diffused | 40 mcd                           | 60 °                          | 2.1V          |          |
|   |  | LTL-553-11 | Yellow (585 nm) | Diffused | 12.6 mcd                         | 60 °                          | 2.1V          |          |
|  |  | LTL-503-14 | Red (655 nm)    | Diffused | 1.1 mcd                          | 60 °                          | 1.7V          |          |
|   |  | LTL-533-14 | Green (565 nm)  | Diffused | 40 mcd                           | 60 °                          | 2.1V          |          |
|   |  | LTL-553-14 | Yellow (585 nm) | Diffused | 12.6 mcd                         | 60 °                          | 2.1V          |          |

#### Notes:

\* θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

\*\* Peak Emission wavelength (nm).