

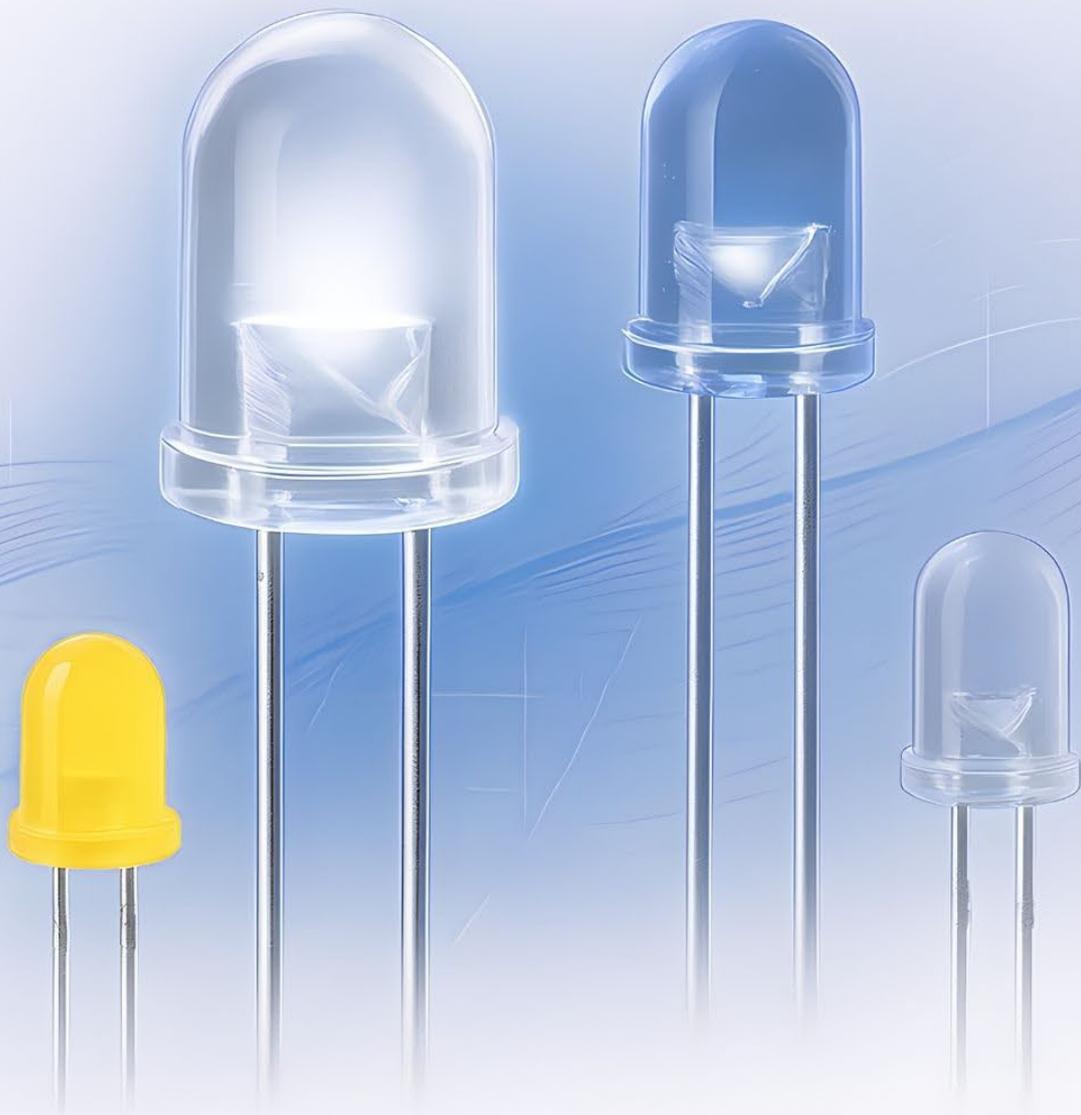


TOYO LED ELECTRONICS LTD.

TOYO LED

THROUGH-HOLE LED PRODUCT CATALOGUE

PRECISION THROUGH-HOLE LED SOLUTIONS



THROUGH-HOLE LED LAMP SERIES

1.8 mm | 3 mm | 5 mm | 10 mm

2025 EDITION

CERTIFIED
ISO 9001



| Email: sales@toyo-led.com | Phone: (852) 2540 7288 | Whatsapp: (852) 69349729

THROUGH-HOLE LED

Blue LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @20mA | | Viewing Angle 2 θ 1/2 | Dimensions |
|--------------------|----------|---------------------|-------------|-------------------|-------|------------------------------------|-------------------------|
| | | | | Min. | Typ. | | |
| TY-30SBL1W25-2000 | InGaN | 470 | water clear | 1000 | 2000 | 25° | T-1 (3mm) Round |
| TY-554BL1W60-600 | InGaN | 470 | water clear | 200 | 600 | 60° | 5mm Round |
| TY-506BL1W10-15000 | InGaN | 470 | water clear | 8000 | 15000 | 10° | T-1 3/4 (5mm) Round |
| TY-50BL1W15-12000 | InGaN | 470 | water clear | 8000 | 12000 | 15° | T-1 3/4 (5mm) Round |

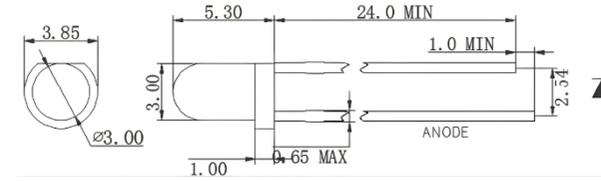
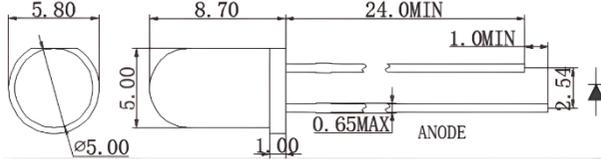
NOTES:

1. All dimensions are in millimeters(inches).
2. Tolerance is $\pm 0.25\text{mm}(0.01")$ unless otherwise noted.
3. Luminous intensity value is traceable to CIE127-2007 standards.

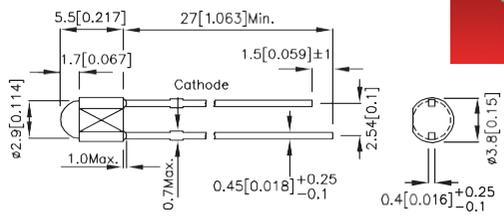
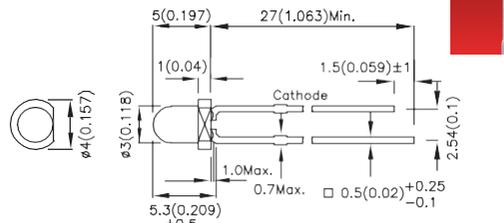


THROUGH-HOLE LED

Infrared Red LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) V=1.2V | | Viewing Angle 2 θ /2 | Dimensions |
|---------------------|----------|---------------------|-------------|--------------------|------|-----------------------------------|---|
| | | | | Min. | Typ. | | |
| TY-30IR1W20-940-5 | AlGaInP | 940 | water clear | 2 | 5 | 20 | IR (3mm) Round   |
| TY-50HIR4W15-850-50 | AlGaInP | 850 | water clear | 25 | 50 | 15 | IR (5mm) Round   |

Round LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @20mA | | Viewing Angle 2 θ /2 | Dimensions |
|-------------------|----------|---------------------|--------------------|-------------------|------|-----------------------------------|--|
| | | | | Min. | Typ. | | |
| TY-302UR2D60-80 | AlGaInP | 620 | red diffused | 20 | 80 | 60° | T-1 (3mm) Round   |
| TY-302UR3T30-600 | AlGaInP | 630 | red transparent | 300 | 600 | 30° | |
| TY-302UY3T30-600 | AlGaInP | 590 | yellow transparent | 300 | 600 | 30° | |
| TY-302UG4D60-40 | AlGaInP | 570 | green diffused | 20 | 40 | 60° | |
| TY-316UR2D60-80 | AlGaInP | 620 | red diffused | 20 | 80 | 60° | T-1 (3mm) Round   |
| TY-316UR3D60-100 | AlGaInP | 630 | red diffused | 50 | 100 | 60° | |
| TY-316UY3D60-100 | AlGaInP | 590 | yellow diffused | 50 | 100 | 60° | |
| TY-316UG4D60-40 | AlGaInP | 570 | green diffused | 20 | 40 | 60° | |
| TY-316UG6D60-80 | AlGaInP | 570 | green diffused | 40 | 80 | 60° | |
| TY-316BL1W20-4000 | InGaN | 465 | water clear | 2000 | 4000 | 20° | |

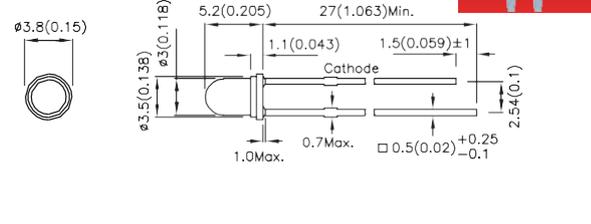
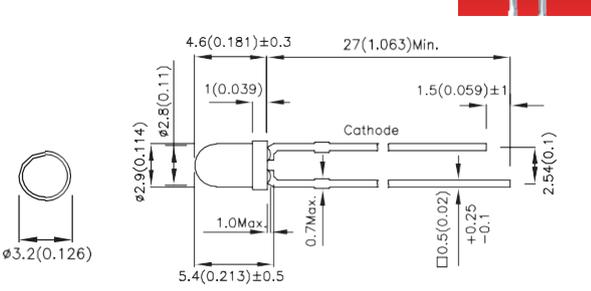
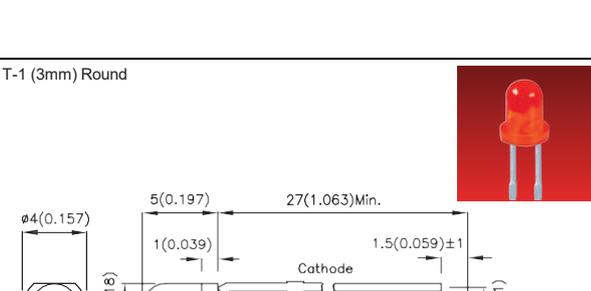
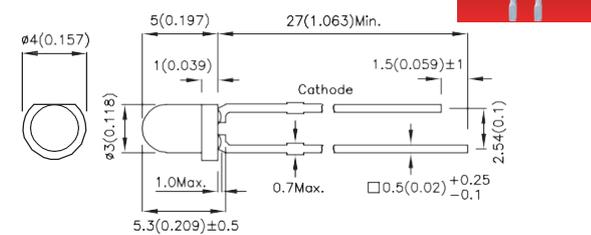
NOTES:

1. All dimensions are in millimeters(inches).
2. Tolerance is $\pm 0.25\text{mm}(0.01")$ unless otherwise noted.
3. Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

Round LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @20mA | | Viewing Angle 2 θ 1/2 | Dimensions |
|--------------------|----------|---------------------|--------------------|-------------------|-------|------------------------------------|---|
| | | | | Min. | Typ. | | |
| TY-306UR4D60-300 | AlGaInP | 620 | red diffused | 100 | 300 | 60° |   |
| TY-306UR2D60-80 | AlGaInP | 625 | red diffused | 20 | 80 | 60° | |
| TY-306UR3T30-600 | AlGaInP | 630 | red transparent | 300 | 600 | 30° | |
| TY-306UR4D60-300 | AlGaInP | 620 | orange diffused | 100 | 300 | 60° | |
| TY-306UA2D60-20 | AlGaInP | 605 | orange diffused | 5 | 20 | 60° | |
| TY-306UA2D50-30 | AlGaInP | 605 | orange transparent | 10 | 30 | 50° | |
| TY-306UY1D60-40 | AlGaInP | 590 | yellow diffused | 20 | 40 | 60° | |
| TY-306UY1D50-60 | AlGaInP | 590 | yellow transparent | 30 | 60 | 50° | |
| TY-306UG4D60-40 | AlGaInP | 570 | green diffused | 20 | 40 | 60° | |
| TY-306UG4W30-150 | AlGaInP | 570 | water clear | 50 | 150 | 30° | |
| TY-306PG6W30-200 | InGaIn | 557 | water clear | 50 | 200 | 30° |   |
| TY-306BL1W20-4000 | InGaIn | 465 | water clear | 2000 | 4000 | 20° | |
| TY-30SUR2D50-100 | AlGaInP | 620 | red diffused | 40 | 100 | 50° | |
| TY-30SUR2W30-200 | AlGaInP | 620 | water clear | 100 | 200 | 30° | |
| TY-30SUA2D50-30 | AlGaInP | 605 | orange diffused | 10 | 30 | 50° | |
| TY-30SUA2D30-80 | AlGaInP | 605 | water clear | 40 | 80 | 30° | |
| TY-30SUY1D50-60 | AlGaInP | 590 | yellow diffused | 20 | 60 | 50° | |
| TY-30SUG4D50-60 | AlGaInP | 570 | green diffused | 20 | 60 | 50° | |
| TY-30SUG4W30-150 | AlGaInP | 570 | water clear | 50 | 150 | 30° | |
| TY-30SPG6D50-80 | AlGaInP | 557 | green diffused | 40 | 80 | 50° | |
| TY-30SUDR2D50-150 | AlGaInP | 640 | red diffused | 50 | 150 | 50° |   |
| TY-30SUDR2W30-250 | AlGaInP | 640 | water clear | 100 | 250 | 30° | |
| TY-30SUR3D50-250 | AlGaInP | 630 | red diffused | 100 | 250 | 50° | |
| TY-30SUR3W30-600 | AlGaInP | 630 | water clear | 300 | 600 | 30° | |
| TY-30SUA1W30-600 | AlGaInP | 605 | water clear | 300 | 600 | 30° | |
| TY-30SUR5W30-2000 | AlGaInP | 625 | water clear | 1000 | 2000 | 30° | |
| TY-30SUY3W30-1000 | AlGaInP | 590 | water clear | 400 | 1000 | 30° | |
| TY-30SUY4W30-2000 | AlGaInP | 590 | water clear | 1000 | 2000 | 30° | |
| TY-30SUG4D50-60 | AlGaInP | 570 | green diffused | 20 | 60 | 50° | |
| TY-30SUG4W30-150 | AlGaInP | 570 | water clear | 50 | 150 | 30° | |
| TY-30SUG6W30-300 | AlGaInP | 570 | water clear | 100 | 300 | 30° |   |
| TY-30SPG1W30-15000 | InGaIn | 525 | water clear | 8000 | 15000 | 30° | |
| TY-30SBL1W30-2000 | InGaIn | 465 | water clear | 1000 | 2000 | 30° | |
| TY-30SBL1W20-4000 | InGaIn | 465 | water clear | 2000 | 4000 | 20° | |
| TY-308UR2D60-80 | AlGaInP | 620 | red diffused | 20 | 80 | 60° | |
| TY-308UR3D60-100 | AlGaInP | 630 | red diffused | 50 | 100 | 60° | |
| TY-308UY1D60-40 | AlGaInP | 590 | yellow diffused | 20 | 40 | 60° | |
| TY-308UY3W50-400 | AlGaInP | 590 | water clear | 200 | 400 | 50° | |
| TY-308UG4D60-40 | AlGaInP | 570 | green diffused | 20 | 40 | 60° | |
| TY-308UG6W30-300 | AlGaInP | 570 | water clear | 100 | 300 | 30° | |
| TY-308PG1W30-15000 | InGaIn | 525 | water clear | 8000 | 15000 | 30° | |
| TY-308BL1W30-2000 | InGaIn | 465 | water clear | 1000 | 2000 | 30° | |

NOTES:
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THROUGH-HOLE LED

Round LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) 20mA | | Viewing Angle 2 θ 1/2 | Dimensions |
|--------------------|----------|---------------------|-----------------|------------------|-------|------------------------------------|--|
| | | | | Min. | Typ. | | |
| TY-414UR3D80-50 | AlGaInP | ● 630 | red diffused | 20 | 50 | 80° | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div> </div> <div style="margin-left: 10px;"> </div> </div> |
| TY-414UR4D80-150 | AlGaInP | ● 620 | red diffused | 50 | 150 | 80° | |
| TY-414UY1D80-20 | AlGaInP | ● 590 | yellow diffused | 5 | 20 | 80° | |
| TY-414UG4D80-20 | AlGaInP | ● 570 | green diffused | 5 | 20 | 80° | |
| TY-554UR4W60-200 | AlGaInP | ● 630 | water clear | 50 | 200 | 60° | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div> </div> <div style="margin-left: 10px;"> </div> </div> |
| TY-50UR2D30-200 | AlGaInP | ● 620 | red diffused | 100 | 200 | 30° | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div> </div> <div style="margin-left: 10px;"> </div> </div> |
| TY-50UR4D30-400 | AlGaInP | ● 620 | red diffused | 200 | 400 | 30° | |
| TY-50UR2W20-400 | AlGaInP | ● 620 | water clear | 100 | 400 | 20° | |
| TY-50UY1D30-150 | AlGaInP | ● 590 | yellow diffused | 50 | 150 | 30° | |
| TY-50UY1W20-300 | AlGaInP | ● 590 | water clear | 100 | 300 | 20° | |
| TY-50UG4D30-100 | AlGaInP | ● 570 | green diffused | 50 | 100 | 30° | |
| TY-50UG4W20-200 | AlGaInP | ● 570 | water clear | 100 | 200 | 20° | |
| TY-50UDR1D30-150 | AlGaInP | ● 640 | red diffused | 50 | 150 | 30° | |
| TY-50UDR2D30-300 | AlGaInP | ● 640 | red diffused | 100 | 300 | 30° | |
| TY-50UR3D30-400 | AlGaInP | ● 630 | red diffused | 200 | 400 | 30° | |
| TY-50UR3W20-800 | AlGaInP | ● 630 | water clear | 400 | 800 | 20° | |
| TY-50UR4W20-1500 | AlGaInP | ● 625 | water clear | 800 | 1500 | 20° | |
| TY-50UR20W20-12000 | AlGaInP | ● 625 | water clear | 6000 | 12000 | 20° | |
| TY-50UY3W20-1000 | AlGaInP | ● 590 | water clear | 500 | 1000 | 20° | |
| TY-50UY3W20-1500 | AlGaInP | ● 590 | water clear | 800 | 1500 | 20° | |
| TY-50UY21W20-12000 | AlGaInP | ● 590 | water clear | 6000 | 12000 | 20° | |
| TY-50UG4W20-500 | AlGaInP | ● 570 | water clear | 250 | 500 | 20° | |
| TY-50PG1W20-15000 | InGaIn | ● 525 | water clear | 10000 | 15000 | 20° | |
| TY-50BL1W20-4000 | InGaIn | ● 465 | water clear | 2000 | 4000 | 20° | |
| TY-50BL3W20-8000 | InGaIn | ● 470 | water clear | 4000 | 8000 | 20° | |

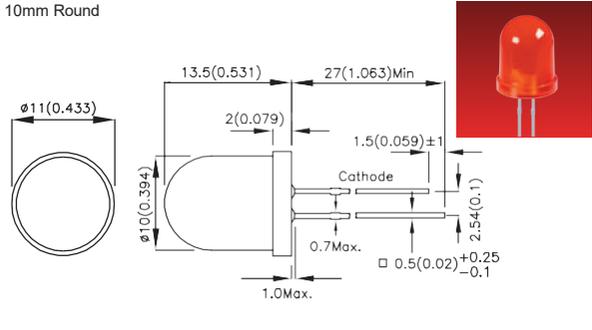
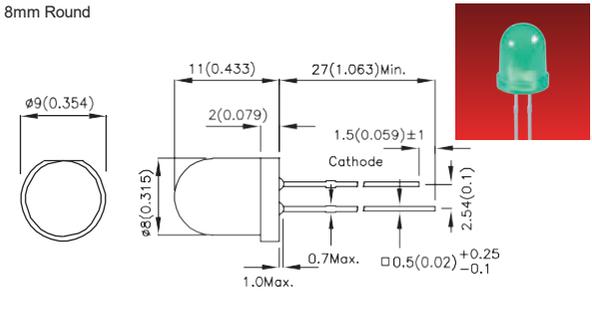
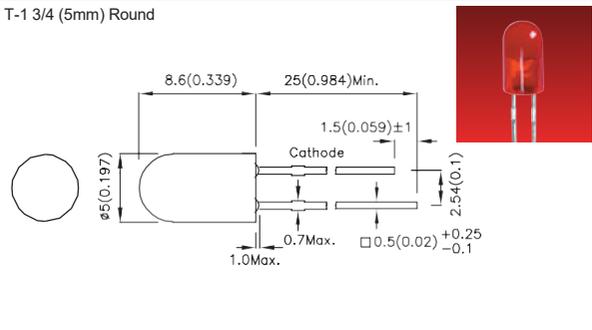
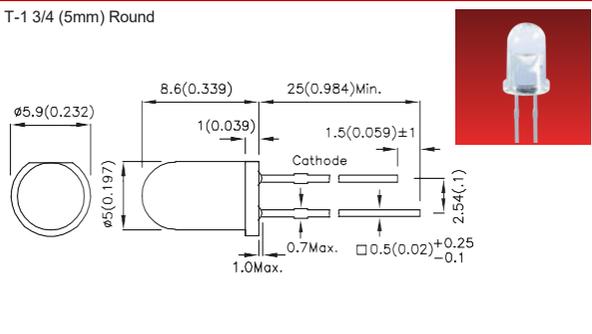
- NOTES:
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 3. Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

Round LED

| Part Number | Material | λ_D | Lens Type Min. | Iv (mcd) 20mA Typ. 201/2 | Viewing Angle | Dimensions (mm) |
|--------------------|----------|-------------|-----------------|--------------------------------|------------------|-----------------|
| TY-50UR3W30-500 | AlGaInP | 630 | water clear | 200 | 500 | 30° |
| TY-50UR20W30-6000 | AlGaInP | 625 | water clear | 3000 | 6000 | 30° |
| TY-50UG4W30-300 | AlGaInP | 570 | water clear | 100 | 300 | 30° |
| TY-50BL1W30-3000 | InGaN | 465 | water clear | 1000 | 3000 | 30° |
| TY-50BL3W30-5000 | InGaN | 470 | water clear | 2000 | 5000 | 30° |
| TY-51UR2D30-200 | AlGaInP | 620 | red diffused | 100 | 200 | 30° |
| TY-51UR2W20-800 | AlGaInP | 640 | water clear | 400 | 800 | 20° |
| TY-51UDR2D30-300 | GaAlAs | 640 | red diffused | 100 | 300 | 30° |
| TY-51UR3D30-400 | AlGaInP | 630 | red diffused | 200 | 400 | 30° |
| TY-51UY1D30-150 | AlGaInP | 590 | yellow diffused | 50 | 150 | 30° |
| TY-51UG4D30-100 | AlGaInP | 570 | green diffused | 50 | 100 | 30° |
| TY-51UG6D30-150 | AlGaInP | 570 | green diffused | 100 | 150 | 30° |
| TY-80UR2D30-200 | AlGaInP | 620 | red diffused | 100 | 200 | 30° |
| TY-80UDR2W15-1000 | AlGaInP | 640 | water clear | 500 | 1000 | 15° |
| TY-80UR2D30-300 | AlGaInP | 640 | red diffused | 100 | 300 | 30° |
| TY-80UR1D30-150 | AlGaInP | 640 | red diffused | 50 | 150 | 30° |
| TY-80UR3D30-400 | AlGaInP | 630 | red diffused | 200 | 400 | 30° |
| TY-80UY1D30-150 | AlGaInP | 590 | yellow diffused | 50 | 150 | 30° |
| TY-80UG4D30-100 | AlGaInP | 570 | green diffused | 50 | 100 | 30° |
| TY-100UR2D30-200 | AlGaInP | 620 | red diffused | 100 | 200 | 30° |
| TY-100UR1D30-150 | AlGaInP | 640 | red diffused | 50 | 150 | 30° |
| TY-100UDR2W15-1000 | AlGaInP | 640 | water clear | 500 | 1000 | 15° |
| TY-100UR2D30-300 | AlGaInP | 640 | red diffused | 100 | 300 | 30° |
| TY-100UY1D30-150 | AlGaInP | 590 | yellow diffused | 50 | 150 | 30° |
| TY-100UG4D30-100 | AlGaInP | 570 | green diffused | 50 | 100 | 30° |
| TY-100BL1D20-3000 | InGaN | 465 | blue diffused | 1000 | 3000 | 20° |



NOTES:
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 3. Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

Round LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) | | Viewing Angle 2 θ 1/2 | Dimensions |
|----------------------|----------|---------------------|-----------------|----------------|-------------------------|------------------------------------|----------------------------|
| | | | | *V=12V Min. | V=5V **V=14V Typ. | | |
| TY-30SUR2D50-100-5V | AlGaInP | 620 | red diffused | 50 | 100 | 50° | <p>T-1 (3mm) Round</p> |
| TY-30SUR2D50-50-12V | AlGaInP | 620 | red diffused | 20 | 50 | 50° | |
| TY-30SUY1D50-60-5V | AlGaInP | 590 | yellow diffused | 20 | 60 | 50° | |
| TY-30SUY1D50-30-12V | AlGaInP | 590 | yellow diffused | 10 | 30 | 50° | |
| TY-30SUG4D50-60-5V | AlGaInP | 570 | green diffused | 20 | 60 | 50° | |
| TY-30SUG4D50-30-12V | AlGaInP | 570 | green diffused | 10 | 30 | 50° | |
| TY-30SUDR2D50-60-5V | AlGaInP | 640 | red diffused | 20 | 60 | 50° | |
| TY-30SUDR2D50-30-14V | AlGaInP | 640 | red diffused | 10 | 30 | 50° | |
| TY-50UR2D30-200-5V | AlGaInP | 620 | red diffused | 100 | 200 | 30° | <p>T-1 3/4 (5mm) Round</p> |
| TY-50UR2D30-100-12V | AlGaInP | 620 | red diffused | 50 | 100 | 30° | |
| TY-50UY1D30-150--5V | AlGaInP | 590 | yellow diffused | 50 | 150 | 30° | |
| TY-50UY1D30-80-12V | AlGaInP | 590 | yellow diffused | 20 | 80 | 30° | |
| TY-50UG4D30-120--5V | AlGaInP | 570 | green diffused | 60 | 120 | 30° | |
| TY-50UG4D30-60-12V | AlGaInP | 570 | green diffused | 20 | 60 | 30° | |

Round LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @2mA | | Viewing Angle 2 θ 1/2 | Dimensions |
|-----------------|----------|---------------------|-----------------|------------------|------|------------------------------------|----------------------------|
| | | | | Min. | Typ. | | |
| TY-30SUR2D50-10 | AlGaInP | 620 | red diffused | 5 | 10 | 50° | <p>T-1 (3mm) Round</p> |
| TY-30SUY1D50-6 | AlGaInP | 590 | yellow diffused | 2 | 6 | 50° | |
| TY-30SUG4D50-6 | AlGaInP | 570 | green diffused | 2 | 6 | 50° | |
| TY-50UR2D30-20- | AlGaInP | 620 | red diffused | 10 | 20 | 30° | <p>T-1 3/4 (5mm) Round</p> |
| TY-50UY1D30-15 | AlGaInP | 590 | yellow diffused | 5 | 15 | 30° | |
| TY-50UG4D30-12 | AlGaInP | 570 | green diffused | 4 | 12 | 30° | |

NOTES:

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- Tolerance is $\pm 0.25\text{mm}(0.01")$ unless otherwise noted.
- Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

Rectangular LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @10mA | | Viewing | Dimensions |
|------------------|----------|---------------------|-----------------|-------------------|------|---------|----------------------------------|
| | | | | Min. | Typ. | Angle | |
| TY-52AUR3D140-20 | AlGaInP | ● 635 | red diffused | 10 | 20 | 140° | <p>1.9mm x 3.9mm Rectangular</p> |
| TY-52AUR2D140-10 | AlGaInP | ● 620 | red diffused | 5 | 10 | 140° | |
| TY-52AUY1D140-10 | AlGaInP | ● 590 | yellow diffused | 5 | 10 | 140° | |
| TY-52AUG4D140-10 | AlGaInP | ● 570 | green diffused | 5 | 10 | 140° | |
| TY-323UR2D140-10 | AlGaInP | ● 620 | red diffused | 5 | 10 | 140° | |
| TY-323UR3D140-20 | AlGaInP | ● 630 | red diffused | 10 | 20 | 140° | <p>2mm x 3mm Rectangular</p> |
| TY-323UY3W100-60 | AlGaInP | ● 590 | water clear | 20 | 60 | 100° | |
| TY-323UG4D140-10 | AlGaInP | ● 570 | green diffused | 5 | 10 | 140° | |
| TY-323UG6D140-15 | AlGaInP | ● 570 | green diffused | 10 | 15 | 140° | |
| TY-52FBL1D120-80 | InGaN | ● 465 | blue diffused | 40 | 80 | 120° | |

NOTES:

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2. Tolerance is ±0.25mm (0.01") unless otherwise noted.
3. Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

Rectangular LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @10mA | | Viewing Angle 2 θ /2 | Dimensions |
|-------------------|----------|---------------------|-----------------|-------------------|------|-----------------------------------|---------------------------|
| | | | | Min. | Typ. | | |
| TY-52BUR2D140-10 | AlGaInP | 620 | red diffused | 5 | 10 | 140° | 2mm x 5mm Rectangular |
| TY-52BUDR2D140-20 | AlGaInP | 640 | red diffused | 10 | 20 | 140° | |
| TY-52BUY1D140-10 | AlGaInP | 590 | yellow diffused | 5 | 10 | 140° | |
| TY-52BUG4D140-10 | AlGaInP | 570 | green diffused | 5 | 10 | 140° | |
| TY-522UR2D140-10 | AlGaInP | 620 | red diffused | 5 | 10 | 140° | |
| TY-522UY1D140-10 | AlGaInP | 590 | yellow diffused | 5 | 10 | 140° | 2mm x 5mm Rectangular |
| TY-522UY4D140-50 | AlGaInP | 590 | yellow diffused | 20 | 50 | 140° | |
| TY-522UG4D140-10 | AlGaInP | 570 | green diffused | 5 | 10 | 140° | |
| TY-522UG6D140-15 | AlGaInP | 570 | green diffused | 10 | 15 | 140° | |

Multi-Color LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @20mA | | Viewing Angle 2 θ /2 | Dimensions |
|---------------------|----------|---------------------|-----------------|-------------------|------|-----------------------------------|---------------------|
| | | | | Min. | Typ. | | |
| TY-30SUR2UR2D60-80 | AlGaInP | 620 | red diffused | 40 | 80 | 60° | T-1 (3mm) Round |
| | AlGaInP | 620 | | 40 | 80 | | |
| TY-30SUY1UY1D60-40 | AlGaInP | 590 | yellow diffused | 20 | 40 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-30SUG4UG4D60-40 | AlGaInP | 570 | green diffused | 20 | 40 | 60° | |
| | AlGaInP | 570 | | 20 | 40 | | |
| TY-30SUR2UG4D60-80 | AlGaInP | 620 | white diffused | 40 | 80 | 60° | |
| | AlGaInP | 570 | | 20 | 40 | | |
| TY-30SUR2UY1D60-80 | AlGaInP | 620 | white diffused | 40 | 80 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-30SUG4UY1D60-40 | AlGaInP | 570 | white diffused | 20 | 40 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-316UR2UG4D60-80N | AlGaInP | 620 | white diffused | 40 | 80 | 60° | T-1 (3mm) Round |
| | AlGaInP | 570 | | 20 | 40 | | |
| TY-316UR2UY1D60-80N | AlGaInP | 620 | white diffused | 40 | 80 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-316UG4UY1D60-40N | AlGaInP | 570 | white diffused | 20 | 40 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |

NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (0.01") unless otherwise noted.
3. Luminous intensity value is traceable to CIE 127-2007 standards.



THROUGH-HOLE LED

Multi-Color LED

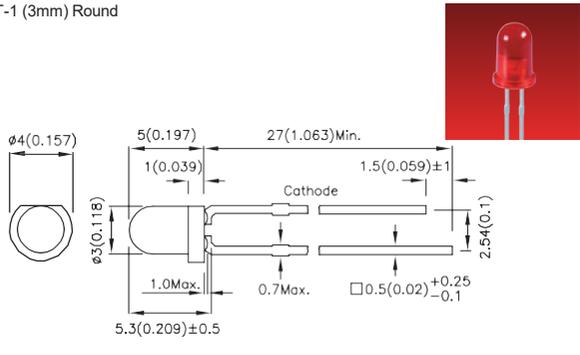
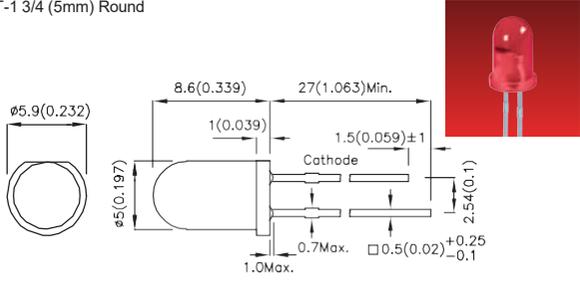
| Part Number | Material | λ_D (nm) | Lens Type | I _v (mcd) @20mA | | Viewing Angle | Dimensions |
|----------------------|----------|---------------------|----------------|-------------------------------|------|------------------|------------|
| | | | | Min. | Typ. | | |
| TY-50UR2UG6M30-300 | AlGaInP | 620 | white diffused | 100 | 300 | 30° | |
| | AlGaInP | 570 | | 50 | 150 | | |
| TY-50UR2UG4M60-80 | AlGaInP | 620 | white diffused | 40 | 80 | 60° | |
| | AlGaInP | 570 | | 20 | 40 | | |
| TY-50UR2UY1M60-80 | AlGaInP | 620 | white diffused | 40 | 80 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-50UG4UY1M60-40 | AlGaInP | 570 | white diffused | 20 | 40 | 60° | |
| | AlGaInP | 590 | | 20 | 40 | | |
| TY-50UR3UG4M60-100 | AlGaInP | 630 | white diffused | 50 | 100 | 60° | |
| | AlGaInP | 570 | | 20 | 40 | | |
| TY-50UR3UG6M60-100 | AlGaInP | 630 | white diffused | 50 | 100 | 60° | |
| | AlGaInP | 570 | | 30 | 60 | | |
| TY-50UR2UG4W20-300 | AlGaInP | 620 | water clear | 150 | 300 | 20° | |
| | AlGaInP | 570 | | 100 | 200 | | |
| TY-50UG4UY1W20-200 | AlGaInP | 570 | water clear | 100 | 200 | 20° | |
| | AlGaInP | 590 | | 100 | 200 | | |
| TY-50UR3UG4W20-800 | AlGaInP | 630 | water clear | 400 | 800 | 20° | |
| | AlGaInP | 570 | | 100 | 200 | | |
| TY-AK50RBG1W50(C) | AlGaInP | 630 | water clear | 200 | 400 | 50° | |
| | InGaN | 465 | | 400 | 900 | | |
| TY-AK50RBG1M60(C) | InGaN | 525 | white diffused | 1000 | 1700 | 60° | |
| | AlGaInP | 630 | | 120 | 300 | | |
| TY-AK50RBUG1M60(C) | InGaN | 465 | white diffused | 120 | 300 | 60° | |
| | InGaN | 525 | | 600 | 1300 | | |
| TY-AK50RBG1M60(C) | AlGaInP | 630 | white diffused | 100 | 200 | 60° | |
| | InGaN | 465 | | 120 | 300 | | |
| TY-AK50RBUG1M60(C) | AlGaInP | 570 | white diffused | 80 | 150 | 60° | |
| | InGaN | 465 | | 300 | 500 | | |
| TY-AK50RBG1M60(C) | InGaN | 525 | white diffused | 900 | 1700 | 60° | |
| | AlGaInP | 630 | | 120 | 250 | | |
| TY-100UR2UG4M50-100N | AlGaInP | 620 | white diffused | 40 | 100 | 50° | |
| | AlGaInP | 570 | | 30 | 60 | | |
| TY-100UR3UG4M50-150N | AlGaInP | 630 | white diffused | 50 | 150 | 50° | |
| | AlGaInP | 570 | | 20 | 60 | | |

NOTES:
 1. All dimensions are in millimeters(inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Luminous intensity value is traceable to CIE127-2007 standards.

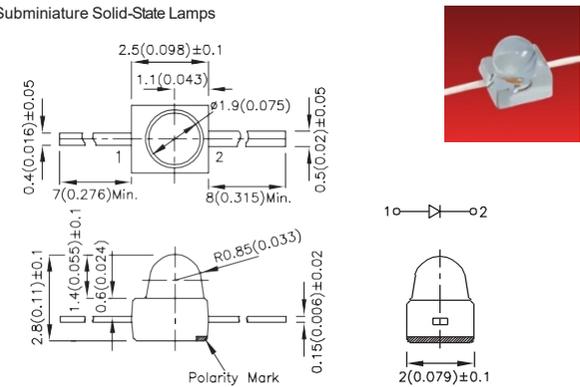


THROUGH-HOLE LED

Flashing LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) V=9V | | Viewing Angle 2 θ /2 | Dimensions |
|-------------------|----------|---------------------|--------------|------------------|------|-----------------------------------|---|
| | | | | Min. | Typ. | | |
| TY-308UR2D60-80 | AlGaInP | 620 | red diffused | 20 | 80 | 60° | T-1 (3mm) Round  |
| TY-308UDR2D60-120 | AlGaInP | 640 | red diffused | 60 | 120 | 60° | |
| TY-50UR3D60-120 | AlGaInP | 635 | red diffused | 60 | 120 | 60° | T-1 3/4 (5mm) Round  |
| TY-50UR2D60-80 | AlGaInP | 620 | red diffused | 20 | 80 | 60° | |
| TY-50UDR2D60-120 | AlGaInP | 640 | red diffused | 60 | 120 | 60° | |

Subminiature LED

| Part Number | Material | λ_D (nm) | Lens Type | Iv (mcd) @20mA | | Viewing Angle 2 θ /2 | Dimensions |
|-----------------|----------|---------------------|-------------|-------------------|------|-----------------------------------|--|
| | | | | Min. | Typ. | | |
| TY-P0809ZUR1-F5 | AlGaInP | 630 | water clear | 198 | 1232 | 20° | Subminiature Solid-State Lamps  |
| TY-P0809ZUY1-F5 | AlGaInP | 590 | water clear | 189 | 1600 | 20° | |
| TY-P0809ZUG1-F5 | GaP | 568 | water clear | 130 | 630 | 25° | |

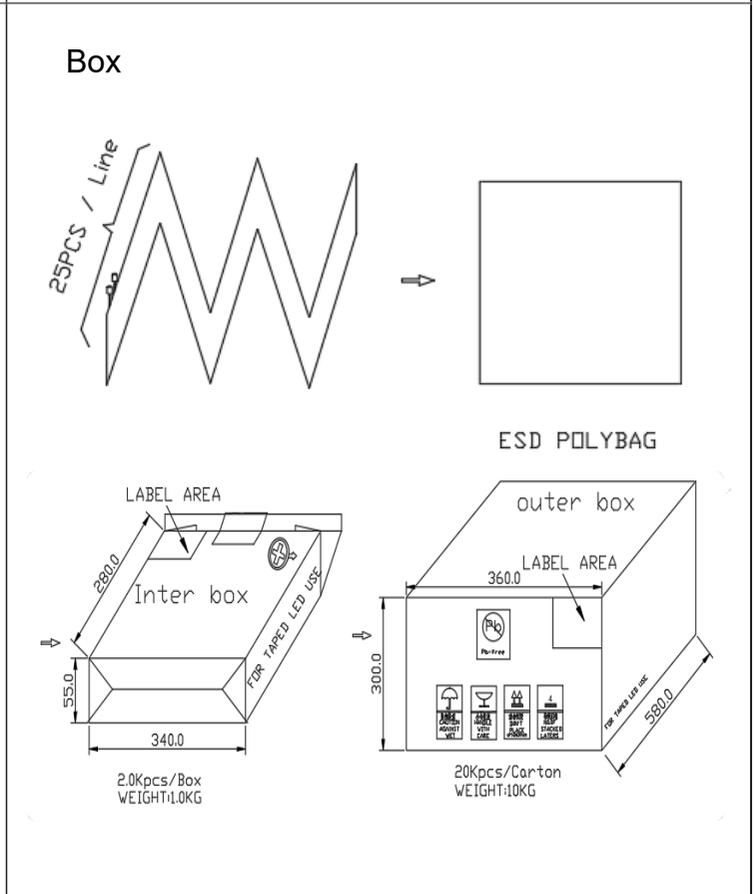
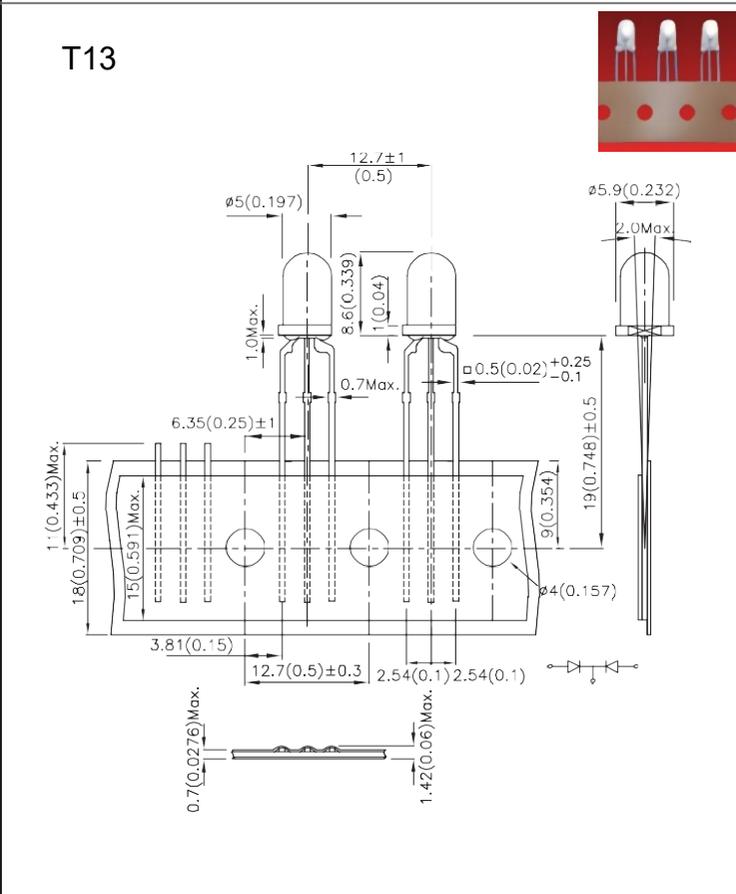
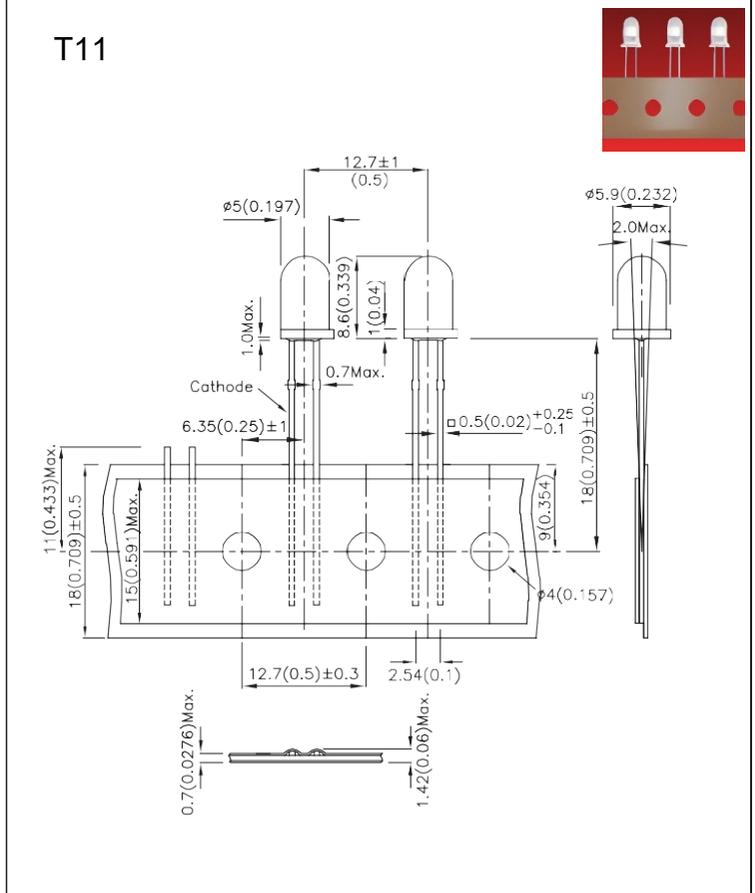
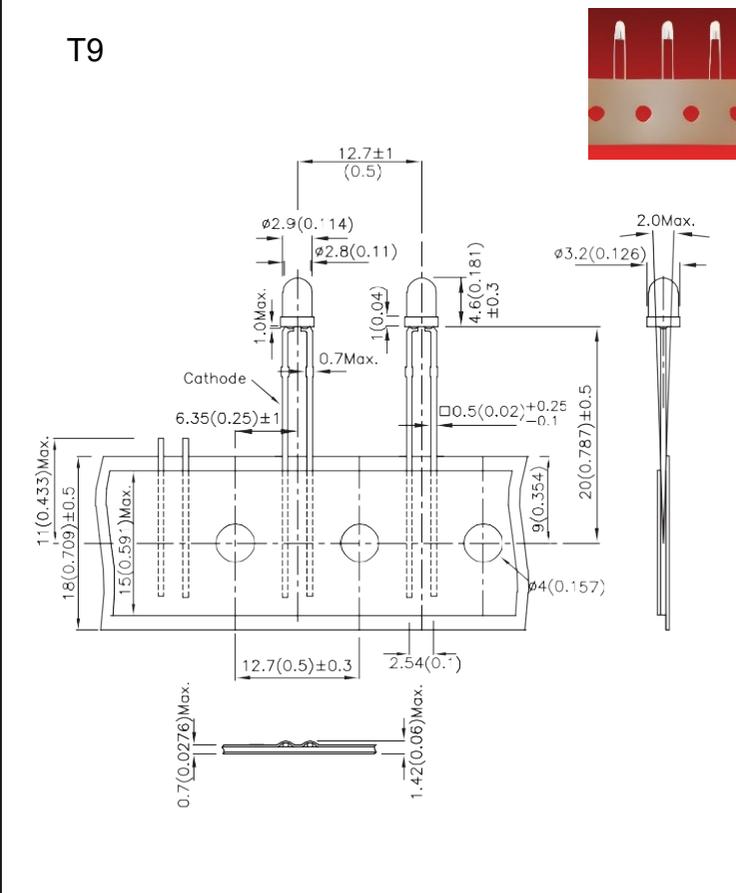
NOTES:

1. All dimensions are in millimeters(inches).
2. Tolerance is $\pm 0.25\text{mm}(0.01\text{'})$ unless otherwise noted.
3. Luminous intensity value is traceable to CIE127-2007 standards.



THROUGH-HOLE LED

TAPE SELECTIONS



- NOTES:
1. All dimensions are in millimeters (inches).
 2. Tolerance is ±0.25mm (0.01") unless otherwise noted.
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