



INFRARED EMITTING DIODES

APPLICATIONS :

- Remote Control , • Photo Detector, • Smoke Detector, • Automatic Control System

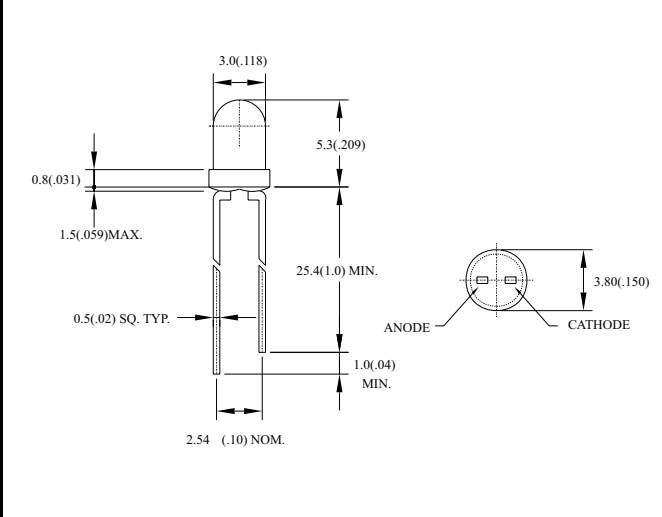
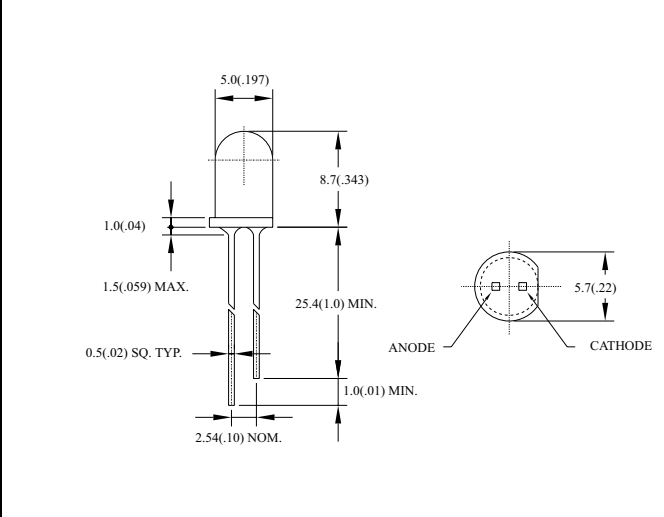
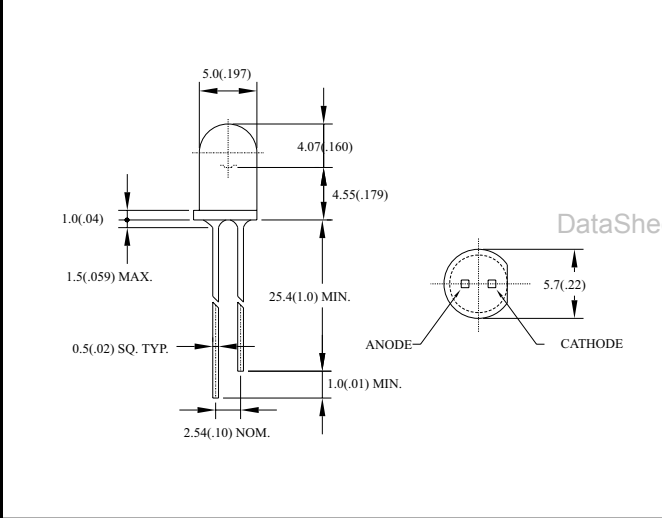
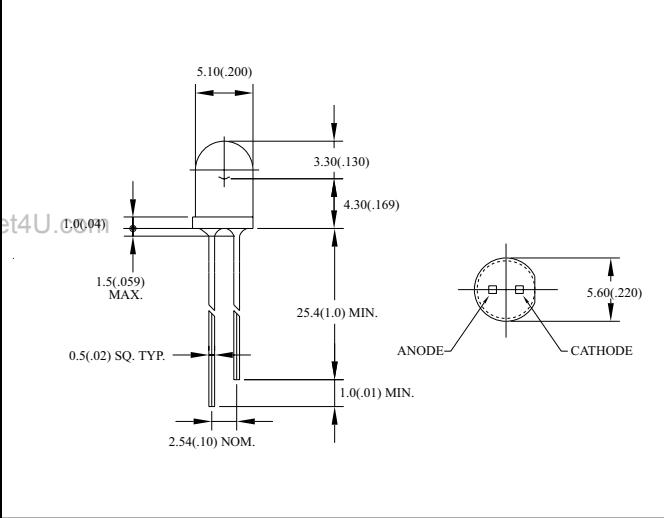
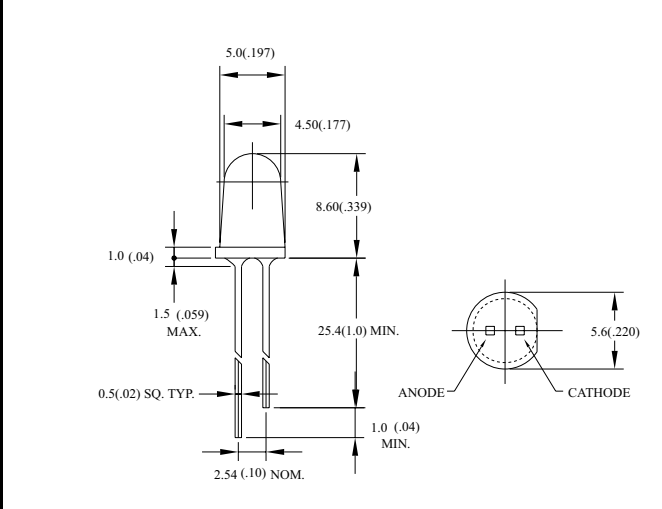
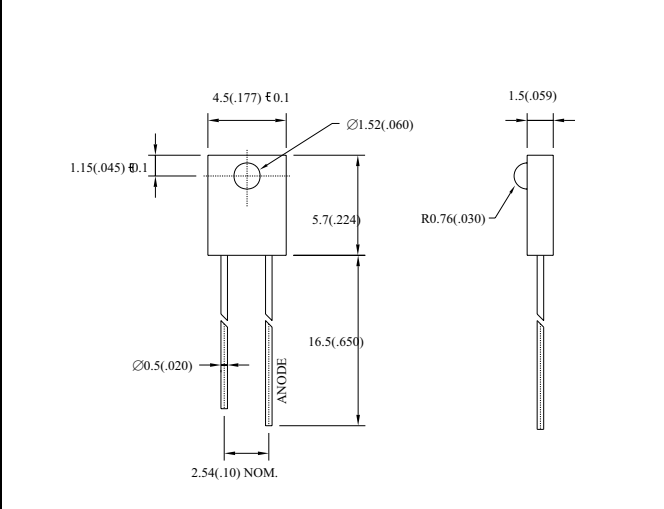
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

- Peak Forward Current(Pulse Width =10us, 10% Duty Cycle)
- Operating Temperature Range (-45°C ~ +85°C)
- Storage Temperature Range (-45°C ~ +100°C)
- Lead Soldering Temperature (1/16inch from case 5sec 250°C)

ELECTRICAL AND RADIANT CHARACTERISTICS (Ta=25°C)

| Package | Part No. | Chip | | Lens Appearance | Absolute Maximum Ratings | | | | Electro-optical Data(At 50mA) | | | | Viewing Angle 2θ 1/2 (deg) | Drawing No. |
|---|------------------|---------------|---------------------------|------------------|--------------------------|---------|---------|-----------|-------------------------------|------|---------------|------|----------------------------|-------------|
| | | Material | Peak Wave Length λ p (nm) | | Δ λ (nm) | Pd (mw) | If (mA) | Peak (mA) | Vf (V) | | Radiant Power | | | |
| | | | | | | | | | Typ | Max | Min. | Typ. | | |
| T-1 Standard 1.0" Lead 3 φ | BIR-BL0331 | GaAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 5.0 | 8.0 | 30 | IR-01 |
| | BIR-BL0731 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 5.0 | 8.0 | | |
| | BIR-BM0331 | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 7.0 | 14.0 | | |
| | BIR-BM1331 | | | Blue Transparent | 50 | 200 | 100 | 500 | 1.35 | 1.60 | 8.0 | 15.0 | | |
| | BIR-BN0331 | GaAlAs/GaAlAs | 880 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 16.0 | | |
| | BIR-BN0731 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 16.0 | | |
| | BIR-BO0331 | GaAlAs/GaAlAs | 850 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 19.0 | | |
| BIR-BO0731 | Blue Transparent | | | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 19.0 | | | |
| T-13/4 Standard 1.0" Lead 5 φ | BIR-BL03J4G | GaAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 7.0 | 13.0 | 15 | IR-02 |
| | BIR-BL07J4G | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 7.0 | 13.0 | | |
| | BIR-BM03J4G | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 9.0 | 16.0 | | |
| | BIR-BM13J4G | | | Blue Transparent | 50 | 200 | 100 | 500 | 1.35 | 1.60 | 10.0 | 17.0 | | |
| | BIR-BN03J4G | GaAlAs/GaAlAs | 880 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 12.0 | 18.0 | | |
| | BIR-BN07J4G | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 12.0 | 18.0 | | |
| | BIR-BO03J4G | GaAlAs/GaAlAs | 850 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 14.0 | 26.0 | | |
| | BIR-BO07J4G | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 14.0 | 26.0 | | |
| T-13/4 Standard 1.0" Lead 5 φ | BIR-BL03J4G-1 | GaAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 4.5 | 10.0 | 25 | IR-03 |
| | BIR-BL07J4G-1 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 4.5 | 10.0 | | |
| | BIR-BM03J4G-1 | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 6.5 | 12.0 | | |
| | BIR-BM13J4G-1 | | | Blue Transparent | 50 | 200 | 100 | 500 | 1.35 | 1.60 | 7.5 | 12.0 | | |
| | BIR-BN03J4G-1 | GaAlAs/GaAlAs | 880 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 12.0 | | |
| | BIR-BN07J4G-1 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 10.0 | 12.0 | | |
| | BIR-BO03J4G-1 | GaAlAs/GaAlAs | 850 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 12.0 | 20.0 | | |
| | BIR-BO07J4G-1 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 12.0 | 20.0 | | |
| T-13/4 1.0" Lead 5 φ | BIR-BM03J4Q-1 | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 4.0 | 6.0 | 45 | IR-04 |
| | BIR-BM07J4Q-1 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 4.0 | 6.0 | | |
| | BIR-BM13J4Q-1 | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.35 | 1.60 | 5.0 | 8.0 | | |
| | BIR-BM17J4Q-1 | | | Blue Transparent | 50 | 200 | 100 | 500 | 1.35 | 1.60 | 5.0 | 8.0 | | |
| | BIR-BO03J4Q-1 | GaAlAs/GaAlAs | 850 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 8.0 | 12.0 | | |
| | BIR-BO07J4Q-1 | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 8.0 | 12.0 | | |
| T-13/4 1.0" Lead Narrow Viewing Angle 5 φ | BIR-BM03J7M | GaAlAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 10.0 | 18.0 | 8 | IR-05 |
| | BIR-BM13J7M | | | Blue Transparent | 50 | 200 | 100 | 500 | 1.35 | 1.60 | 12.0 | 20.0 | | |
| | BIR-BN03J7M | GaAlAs/GaAlAs | 880 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 14.0 | 24.0 | | |
| | BIR-BN07J7M | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 14.0 | 24.0 | | |
| | BIR-BO03J7M | GaAlAs/GaAlAs | 850 | Water Clear | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 15.0 | 25.0 | | |
| | BIR-BO07J7M | | | Blue Transparent | 50 | 150 | 50 | 250 | 1.70 | 2.00 | 15.0 | 25.0 | | |
| Side Viewing | BIR-NL03C1 | GaAs/GaAs | 940 | Water Clear | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 3.0 | 4.0 | 50 | IR-06 |
| | BIR-NM23C1 | GaAlAs/GaAs | | | 50 | 150 | 50 | 250 | 1.40 | 1.60 | 4.0 | 5.0 | | |

Remark : • Ifp=20mA PW=10us DC=10% Tr=500ns Tf=200ns • Radiant Power Unit: mw / cm³

| IR-01 BIR-Bxxxx1 | IR-02 BIR-Bxxxx4G |
|---|--|
|  |  |
| IR-03 BIR-Bxxxx4G-1 | IR-04 BIR-Bxxxx4Q-1 |
|  |  |
| IR-05 BIR-Bxxxx7M | IR-06 BIR-NxxxC1 |
|  |  |

Notes : 1.All Dimensions are in millimeters (inches).
2.Tolerance is $\pm 0.25\text{mm}$ (.010").