



# INFRARED EMITTING DIODES

## APPLICATIONS :

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

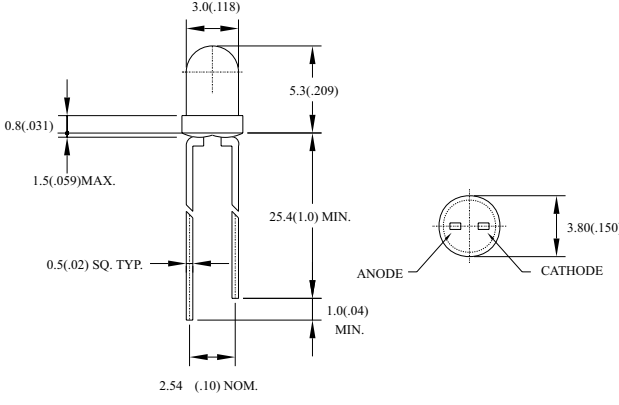
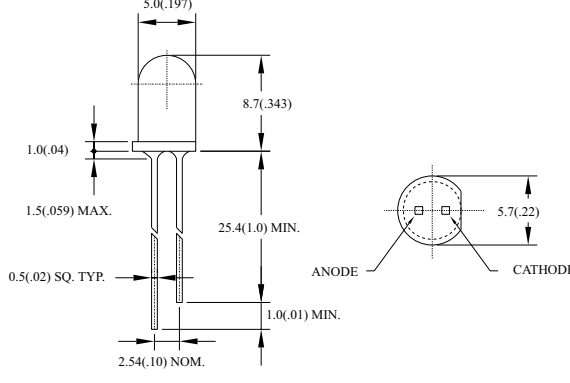
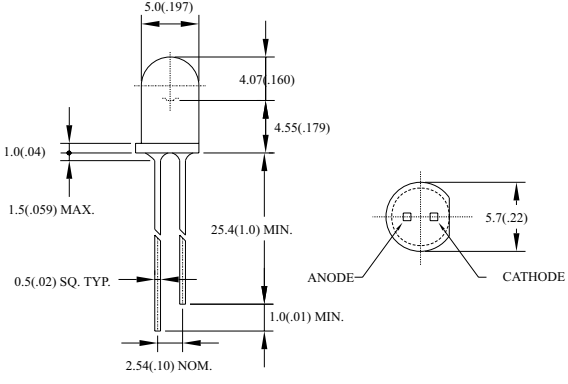
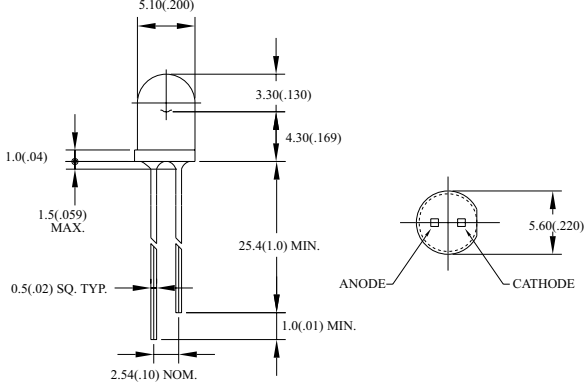
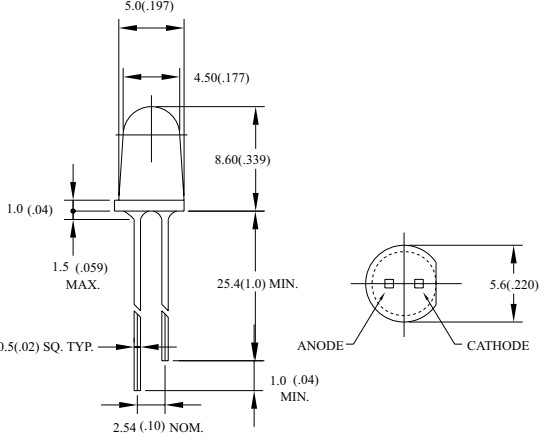
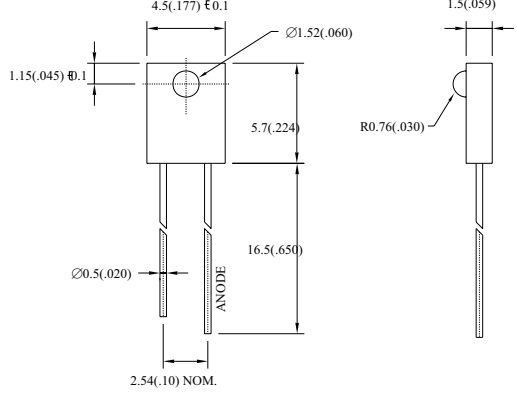
## ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

- 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 2 θ 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 / cm<sup>3</sup>

<p><b>IR-01</b>      <b>BIR-Bxxxx1</b></p> 	<p><b>IR-02</b>      <b>BIR-Bxxxx4G</b></p> 
<p><b>IR-03</b>      <b>BIR-Bxxxx4G-1</b></p> 	<p><b>IR-04</b>      <b>BIR-Bxxxx4Q-1</b></p> 
<p><b>IR-05</b>      <b>BIR-Bxxxx7M</b></p> 	<p><b>IR-06</b>      <b>BIR-NxxxC1</b></p> 

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