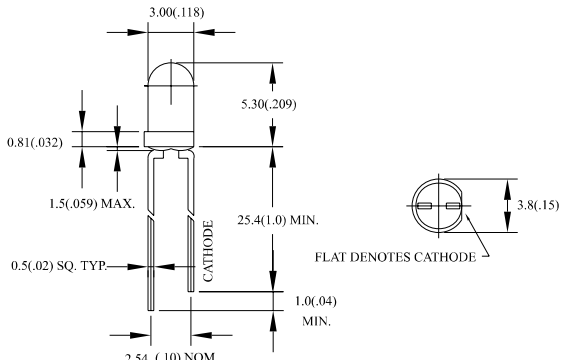
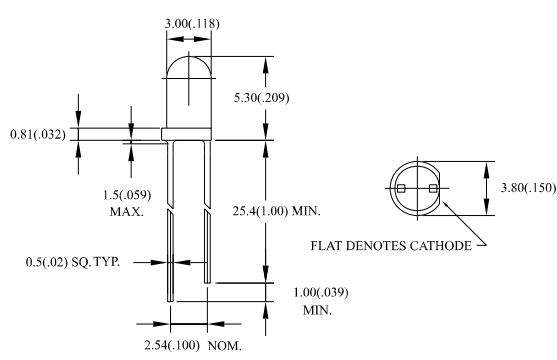
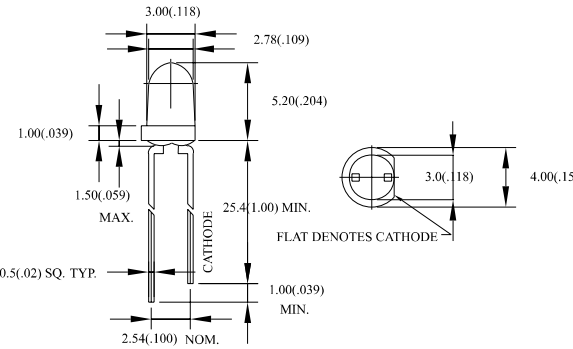
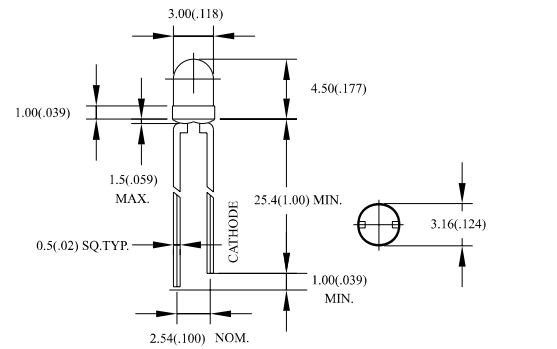
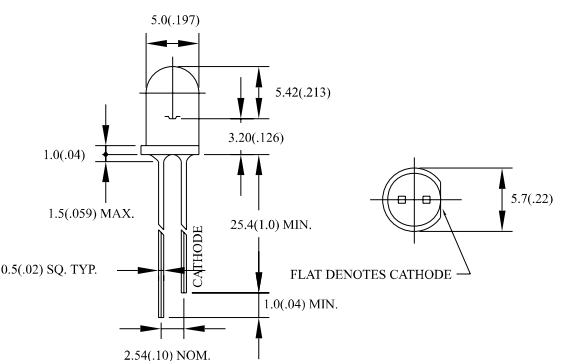
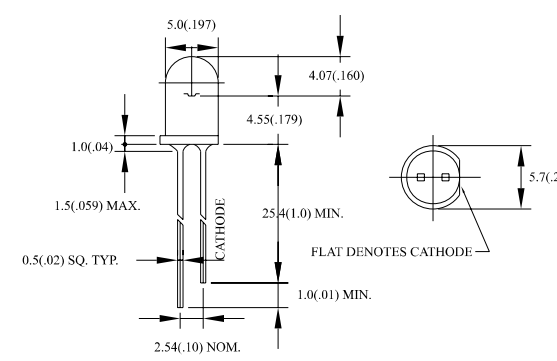
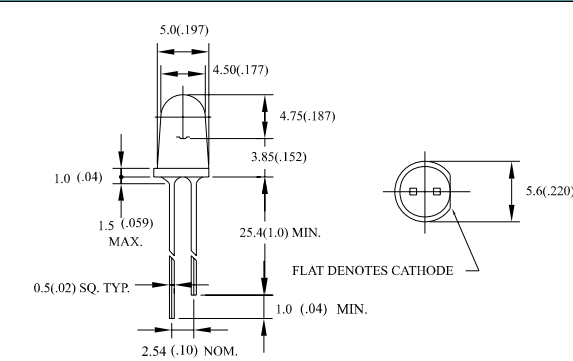
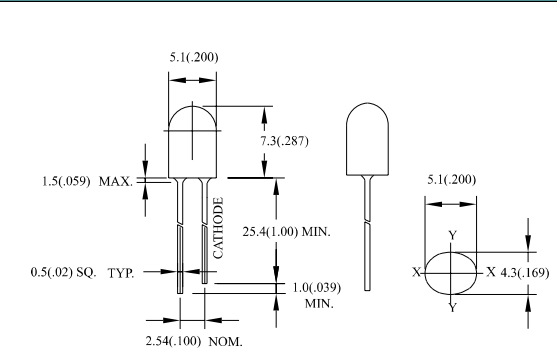


Package	Part No.	Chip		Lens Appearance	Absolute Maximum Ratings				Electro-optical Data(At 20mA)			Viewing Angle 2θ 1/2 (deg)	Drawing No.
		Material Emitted Color	Peak Wave Length λp(nm)		Δλ (nm)	Pd (mw)	If (mA)	Peak (mA)	Vf (V)		Iv (mcd)		
									Typ.	Max	Typ.		
T-1 Standard 1.0" Lead 3φ	BL-BS0331	GaAlAs/ SH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	300	30	L-001
	BL-BF0331	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	500		
	BL-BU0331	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	400		
	BL-BG3331	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	350		
	BL-BG4331	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	600		
	BL-BJ0331	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	800		
	BL-BK3331	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	900		
T-1 Standard 1.0" Lead 3φ	BL-BD0341	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	400	30	L-002
	BL-BF1341	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	600		
	BL-BU1341	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	500		
	BL-BG2341	InGaAlP/ Super Green	662		30	75	30	150	2.4	2.8	200		
	BL-BJ1341	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1000		
	BL-BJ2341	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1200		
	BL-BK4341	InGaAlP/ Ultra Yellow	587		15	75	30	150	2.4	2.8	1200		
T-1 Narrow Viewing 1.0" Lead 3φ	BL-BD0331M	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	600	15	L-003
	BL-BF4331M	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	1000		
	BL-BU2331M	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	800		
	BL-BG4331M	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	700		
	BL-BJ3331M	InGaAlP/ Ultra Orange	630		17	75	30	150	2.4	2.6	1200		
	BL-BJ5331M	InGaAlP/ Soft Orange	610		17	65	30	150	2.0	2.6	1200		
	BL-BK6331M	InGaAlP/ Ultra Yellow	592		15	75	30	150	2.4	2.8	1400		
T-1 Low Profile 1.0" Lead 3φ	BL-BS0331K	GaAlAs/ SH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	250	32	L-004
	BL-BD0331K	GaAlAs/ DH Super Red	660		20	60	30	150	1.7	2.6	300		
	BL-BF4331K	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	450		
	BL-BU0331K	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	400		
	BL-BG3331K	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	300		
	BL-BJ0331K	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	600		
	BL-BK331K	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	700		
T-1 3/4 Standard 1.0"Lead 5φ	BL-BD03J4	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	550	12	L-005
	BL-BG33J4	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	800		
	BL-BG43J4	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	1800		
	BL-BG63J4	InGaN/SiC/ Ultra Green	523		36	110	30	150	3.5	4.0	1300		
	BL-BK23J4	InGaAlP/ Ultra Yellow	587		15	65	30	150	2.0	2.6	2000		
	BL-BK33J4	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	2200		
T-1 3/4 Standard 1.0"Lead 5φ	BL-BD03J4G-1	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	450	20	L-006
	BL-BG43J4G-1	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	1500		
	BL-BU13J4G-1	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	550		
	BL-BJ13J4G-1	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1800		
	BL-BK23J4G-1	InGaAlP/ Ultra Yellow	587		15	65	30	150	2.0	2.6	1800		
	BL-BK33J4G-1	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	1800		
	BL-BF43R4G-1	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	1200		
T-1 3/4 Narrow Viewing 1.0"Lead 5φ	BL-BD03J7M	GaAlAs/ DDH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	1500	8	L-007
	BL-BF43R7M	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	4000		
	BL-BJ13J7M	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	3500		
	BL-BJ53J7M	InGaAlP/ Soft-Orange	610		17	65	30	150	2.0	2.6	4000		
	BL-BK33J7M	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	4500		
	BL-BK63J7M	InGaAlP/ Ultra Yellow	592		17	65	30	150	2.0	2.6	7000		
4.3x5.1x 7.3mm 1.0" Lead Oval	BL-WD03J4	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	350	X-X 35 Y-Y 25	L-008
	BL-WG33J4	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	400		
	BL-WU13J4	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	500		
	BL-WJ13J4	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1700		
	BL-WK33J4	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	1800		

Remark : 1.Hi-Eff Red / High-Efficiency Red.  
 2.Trans / Transparent.  
 3.2θ 1/2 The off-axis angle at which the luminous intensity is half the axial luminous intensity.

L-001 BL-Bxx331 Series	L-002 BL-Bxx341 Series
	
L-003 BL-Bxx331M Series	L-004 BL-Bxx331K Series
	
L-005 BL-Bxxx3J4 Series	L-006 BL-Bxxx4G-1 Series
	
L-007 BL-Bxxx7M Series	L-008 BL-Wxx3J4 Series
	

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

# ULTRA BRIGHT LED LAMPS(ROUND TYPES)

Package	Part No.	Chip		Lens Appearance	Absolute Maximum Ratings				Electro-optical Data(At 20mA)			Viewing Angle 2θ 1/2 (deg)	Drawing No.
		Material Emitted Color	Peak Wave Length λ p(nm)		Δ λ (nm)	Pd (mw)	If (mA)	Peak (mA)	Vf (V)		Iv (mcd)		
									Typ.	Max	Typ.		
T-1 Standard 1.0" Lead 3φ	BL-BS0331	GaAlAs/ SH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	300	30	L-001
	BL-BF0331	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	500		
	BL-BU0331	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	400		
	BL-BG3331	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	350		
	BL-BG4331	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	600		
	BL-BJ0331	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	800		
	BL-BK3331	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	900		
T-1 Standard 1.0" Lead 3φ	BL-BD0341	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	400	30	L-002
	BL-BF1341	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	600		
	BL-BU1341	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	500		
	BL-BG2341	InGaAlP/ Super Green	662		30	75	30	150	2.4	2.8	200		
	BL-BJ1341	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1000		
	BL-BJ2341	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1200		
	BL-BK4341	InGaAlP/ Ultra Yellow	587		15	75	30	150	2.4	2.8	1200		
T-1 Narrow Viewing 1.0" Lead 3φ	BL-BD0331M	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	600	15	L-003
	BL-BF4331M	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	1000		
	BL-BU2331M	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	800		
	BL-BG4331M	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	700		
	BL-BJ3331M	InGaAlP/ Ultra Orange	630		17	75	30	150	2.4	2.6	1200		
	BL-BJ5331M	InGaAlP/ Soft Orange	610		17	65	30	150	2.0	2.6	1200		
	BL-BK6331M	InGaAlP/ Ultra Yellow	592		15	75	30	150	2.4	2.8	1400		
T-1 Low Profile 1.0" Lead 3φ	BL-BS0331K	GaAlAs/ SH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	250	32	L-004
	BL-BD0331K	GaAlAs/ DH Super Red	660		20	60	30	150	1.7	2.6	300		
	BL-BF4331K	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	450		
	BL-BU0331K	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	400		
	BL-BG3331K	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	300		
	BL-BJ0331K	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	600		
	BL-BK331K	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	700		
T-1 3/4 Standard 1.0"Lead 5φ	BL-BD03J4	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	550	12	L-005
	BL-BG33J4	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	800		
	BL-BG43J4	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	1800		
	BL-BG63J4	InGaN/SiC/ Ultra Green	523		36	110	30	150	3.5	4.0	1300		
	BL-BK23J4	InGaAlP/ Ultra Yellow	587		15	65	30	150	2.0	2.6	2000		
	BL-BK33J4	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	2200		
T-1 3/4 Standard 1.0"Lead 5φ	BL-BD03J4G-1	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	450	20	L-006
	BL-BG43J4G-1	InGaN/SiC/ Ultra Green	502		30	110	30	100	3.5	4.0	1500		
	BL-BU13J4G-1	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	550		
	BL-BJ13J4G-1	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1800		
	BL-BK23J4G-1	InGaAlP/ Ultra Yellow	587		15	65	30	150	2.0	2.6	1800		
	BL-BK33J4G-1	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	1800		
	BL-BF43R4G-1	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	1200		
T-1 3/4 Narrow Viewing 1.0"Lead 5φ	BL-BD03J7M	GaAlAs/ DDH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	1500	8	L-007
	BL-BF43R7M	GaAlAs/ DDH Super Red	660		20	65	30	150	2.0	2.6	4000		
	BL-BJ13J7M	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	3500		
	BL-BJ53J7M	InGaAlP/ Soft-Orange	610		17	65	30	150	2.0	2.6	4000		
	BL-BK33J7M	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	4500		
	BL-BK63J7M	InGaAlP/ Ultra Yellow	592		17	65	30	150	2.0	2.6	7000		
4.3x5.1x 7.3mm 1.0" Lead Oval	BL-WD03J4	GaAlAs/ DH Super Red	660	Water Clear	20	60	30	150	1.7	2.6	350	X-X 35 Y-Y 25	L-008
	BL-WG33J4	InGaAlP/ Ultra Green	574		30	75	30	150	2.4	2.8	400		
	BL-WU13J4	InGaAlP/ Ultra Red	645		20	65	30	150	2.0	2.6	500		
	BL-WJ13J4	InGaAlP/ Ultra Orange	620		17	65	30	150	2.0	2.6	1700		
	BL-WK33J4	InGaAlP/ Ultra Yellow	592		15	65	30	150	2.0	2.6	1800		

Remark : 1.Hi-Eff Red / High-Efficiency Red.  
 2.Trans / Transparent.  
 3.2θ 1/2 The off-axis angle at which the luminous intensity is half the axial luminous intensity.

# ULTRA BRIGHT LED LAMPS(ROUND TYPES)

L-001 BL-Bxx331 Series	L-002 BL-Bxx341 Series
L-003 BL-Bxx331M Series	L-004 BL-Bxx331K Series
L-005 BL-Bxxx3J4 Series	L-006 BL-Bxxx4G-1 Series
L-007 BL-Bxxx7M Series	L-008 BL-Wxx3J4 Series

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