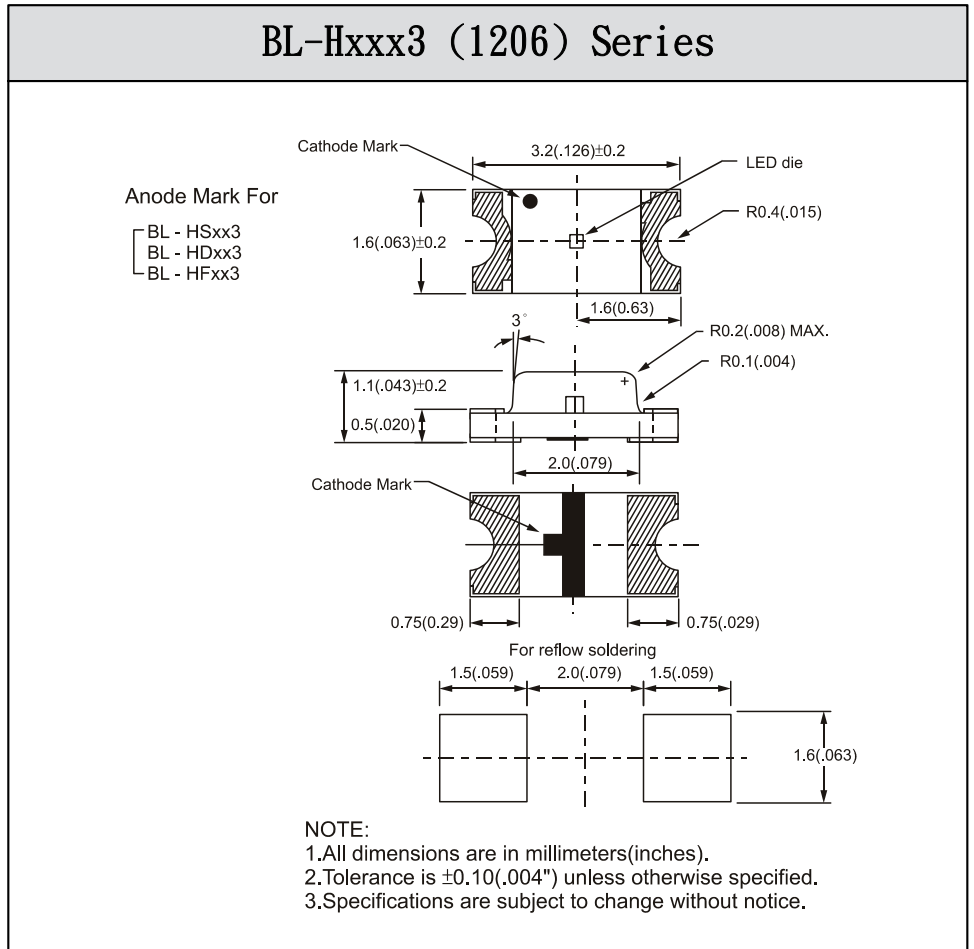
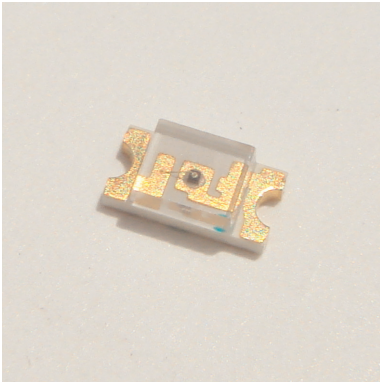


SURFACE MOUNT CHIP LED LAMPS



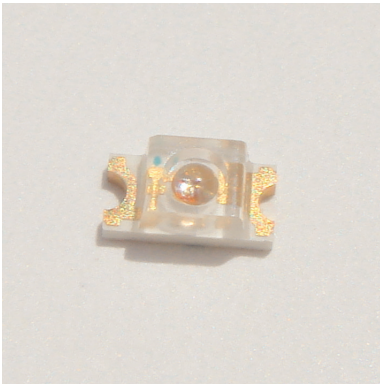
■ Absolute Maximum Ratings
(Ta=25°C)

	UNIT	SPEC.
IF	mA	30
IFp	mA	100
VR	V	5
Topr	°C	-25~+80
Tstg	°C	-30~+85

Part No.	Chip				Lens Appearance	Electro-optical Data (At 20mA)				Viewing Angle 2 θ 1/2 (deg)
	Material	Emitted Color	λ p (nm)	λ d (nm)		Vf (V)		Iv (mcd)		
						Typ.	Max.	Min.	Typ.	
BL-HS133	GaAlAs/GaAs	Super Red	660	643	Water Clear	1.7	2.6	5.5	15.0	120°
BL-HF033	GaAlAs	Super Red	660	64		2.1	2.6	18.2	30.0	
BL-HJE33	AlGaInP	Super Orange Red	630	625		2.1	2.6	63.0	100.0	
BL-HG033	GaP/GaP	Yellow Green	568	571		2.1	2.6	3.7	12.0	
BL-HX133	GaP/GaP	Hi-Eff Green	568	570		2.2	2.6	5.5	12.0	
BL-HGE33	AlGaInP	Super Yellow Green	570	570		2.0	2.6	18.5	35.0	
BL-HG433	InGaN	Bluish Green	505	505		3.5	4.0	63.0	120.0	
BL-HG633	InGaN	Green	525	525		3.5	4.0	63.0	160.0	
BL-HY033	GaAsP/GaP	Yellow	583	585		2.1	2.6	2.4	6.0	
BL-HA133	GaAsP/GaP	Amber	610	610		2.2	2.6	2.4	5.0	
BL-HJF33	AlGaInP	Super Amber	610	605		2.0	2.6	28.0	50.0	
BL-HKB33	AlGaInP	Super Yellow	590	587		2.1	2.6	28.0	45.0	
BL-HKC33	AlGaInP	Super Yellow	590	586		2.1	2.6	63	120.0	

Part No.	Chip				Lens Appearance	Electro-optical Data (At 5mA)				Viewing Angle 2 θ 1/2 (deg)
	Material	Emitted Color	λ p (nm)	λ d (nm)		Vf (V)		Iv (mcd)		
						Typ.	Max.	Min.	Typ.	
BL-HB333	AllnGaN	Super Blue	460	465-470	Water Clear	2.8	3.2	8.2	15.0	120°
BL-HB533	AllnGaN	Super Blue	470	470-475		2.8	3.2	8.2	20.0	

SURFACE MOUNT CHIP LED LAMPS



■ Absolute Maximum Ratings
(Ta=25°C)

	UNIT	SPEC.
IF	mA	30
IFp	mA	100
VR	V	5
Topr	°C	-25~+80
Tstg	°C	-30~+85

BL-Hxxx3A (1206) Series

Cathode Mark

LED die

R0.4(.015)

Anode Mark For

- BL - HSxx3A
- BL - HDxx3A
- BL - HFxx3A

R0.2(.008) MAX.

R0.1(.004)

1.4(.055)±0.2

0.5(.020)

2.0(.079)

1.6(.063)

Cathode Mark

0.75(.029)

2.0(.079)

1.5(.059)

1.6(.063)

For reflow soldering

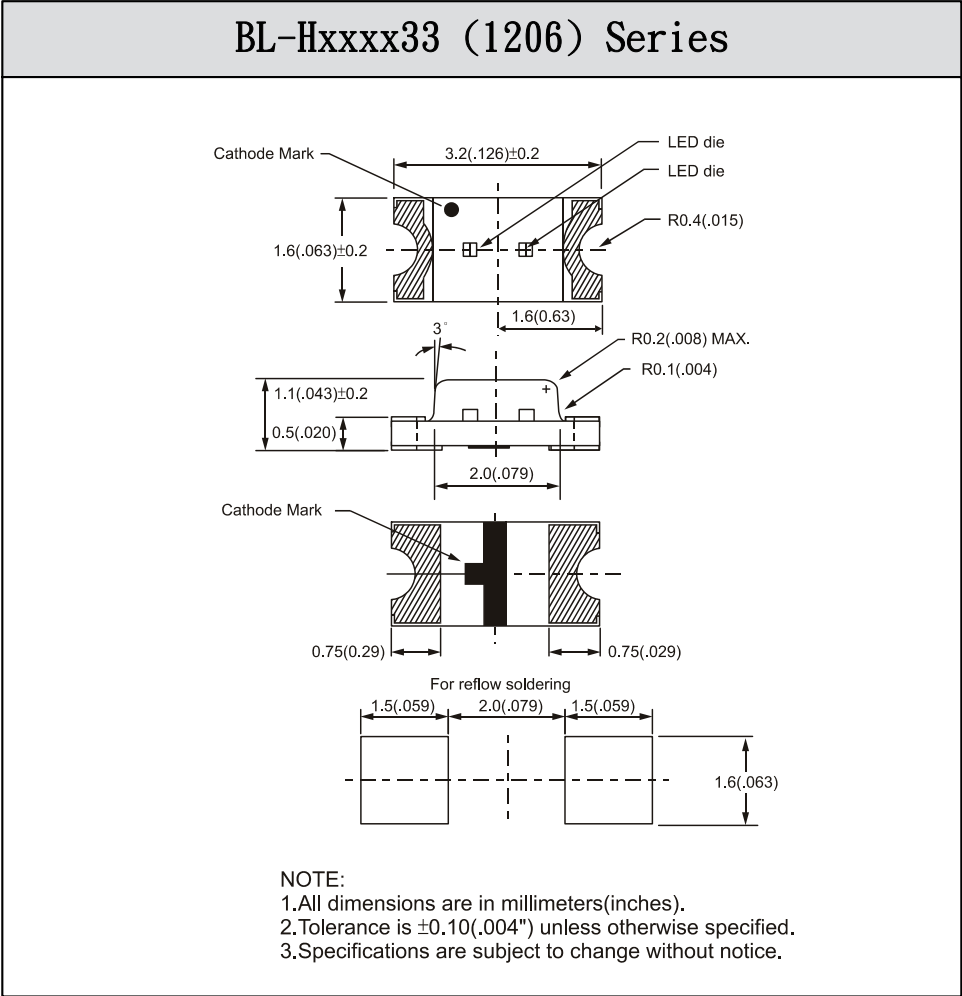
NOTE:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.10 (.004") unless otherwise specified.
3. Specifications are subject to change without notice.

Part No.	Chip				Lens Appearance	Electro-optical Data (At 20mA)				Viewing Angle 2 θ 1/2 (deg)
	Material	Emitted Color	λ p (nm)	λ d (nm)		Vf (V)		Iv (mcd)		
						Typ.	Max.	Min.	Typ.	
BL-HS133A	GaAlAs/GaAs	Super Red	660	643	Water Clear	1.7	2.6	12.3	25.0	60°
BL-HF033A	GaAlAs	Super Red	660	643		2.1	2.6	18.5	30.0	
BL-HJE33A	AlGaInP	Super Orange Red	630	625		2.1	2.6	94.0	150.0	
BL-HG033A	GaP/GaP	Yellow Green	568	571		2.1	2.6	12.3	25.0	
BL-HX133A	GaP/GaP	Hi-Eff Green	568	570		2.2	2.6	12.3	40.0	
BL-HGE33A	AlGaInP	Super Yellow Green	570	570		2.0	2.6	42.0	75.0	
BL-HG433A	InGaN	Bluish Green	505	505		3.5	4.0	94.0	150.0	
BL-HG633A	InGaN	Green	525	525		3.5	4.0	140.0	300.0	
BL-HY033A	GaAsP/GaP	Yellow	583	585		2.1	2.6	5.5	15.0	
BL-HA133A	GaAsP/GaP	Amber	610	610		2.2	2.6	2.4	5.0	
BL-HJF33A	AlGaInP	Super Amber	610	605		2.0	2.6	28.0	50.0	
BL-HKB33A	AlGaInP	Super Yellow	590	587		2.1	2.6	63.0	130.0	
BL-HKD33A	AlGaInP	Super Yellow	595	594		2.1	2.6	94.0	200.0	

Part No.	Chip				Lens Appearance	Electro-optical Data (At 5mA)				Viewing Angle 2 θ 1/2 (deg)
	Material	Emitted Color	λ p (nm)	λ d (nm)		Vf (V)		Iv (mcd)		
						Typ.	Max.	Min.	Typ.	
BL-HB333A	AllnGaN	Super Blue	460	465-470	Water Clear	2.8	3.2	18.5	40.0	60°
BL-HB533A	AllnGaN	Super Blue	470	470-475		2.8	3.2	18.5	45.0	

SURFACE MOUNT DUAL COLOR LED LAMPS



■ Absolute Maximum Ratings
($T_a = 25^\circ\text{C}$)

	UNIT	SPEC.
IF	mA	30
IFp	mA	100
VR	V	5
Topr	$^\circ\text{C}$	$-25 \sim +80$
Tstg	$^\circ\text{C}$	$-30 \sim +85$

Part No.	Chip				Lens Appearance	Electro-optical Data (At 20mA)				Viewing Angle 2θ 1/2 (deg)
	Material	Emitted Color	λ_p (nm)	λ_d (nm)		Vf (V)		Iv (mcd)		
						Typ.	Max.	Min.	Typ.	
BL-HD1X133	GaAlAs/GaAs	Super Red	660	643	1.8	2.6	12.3	25.0	120°	
	GaP/GaP	Hi-Eff Green	568	570	2.2	2.6	5.5	12.0		
BL-HE1G033	GaAsP/GaP	Hi-Eff Red	640	628	2.0	2.6	5.5	12.0		
	GaP/GaP	Green	568	571	2.2	2.6	2.4	10.0		
BL-HE1Y033	GaAsP/GaP	Hi-Eff Red	640	628	2.0	2.6	5.5	12.0		
	GaAsP/GaP	Yellow	583	585	2.1	2.6	2.4	10.0		
BL-HG0Y033	GaP/GaP	Green	568	571	2.2	2.6	2.4	10.0		
	GaAsP/GaP	Yellow	583	585	2.1	2.6	2.4	10.0		