SMD LED LAMP

BL-LS3224A0E1

Features:

- 3.2mmx2.4mm SMD, Subminiature
- Mono-color type
- Compatible with automatic placement equipment
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE: 3KPCS/REEL
- RoHs Compliance

RoHs Compliance

ATTENTION
OBSERVE PRECAUTIONS ELECTROSTATIC SENSITIVE DEVICES

■ Electrical-optical characteristics: (Ta=25°C)

(Test Condition: IF=20mA)

Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
	Emitted Color	Material	λP (nm)		Typ	Max	Min.	Typ.	
BL-LS3224A0E1HC	Red	GaP	700	Water Clear	2.2	2.7	5	15	50
BL-LS3224A0E1SRC	Super Red	AlGaAs	660		1.85	2.30	15	25	
BL-LS3224A0E1LRC	Super Red	AlGaAs	660		1.85	2.30	25	35	
BL-LS3224A0E1EC	Red	GaAsP	640		2.10	2.70	5	15	
BL-LS3224A0E1YC	Yellow	GaAsP	583		2.15	2.70	5	15	
BL-LS3224A0E1GC	Green	GaP	568		2.30	2.70	8	20	

■ Absolute maximum ratings (Ta=25°C)

Parameter	H	SR	LR	UR	E	Y	G	Unit
Forward Current I_F	30	30	30	30	30	30	30	mA
Power Dissipation P_d	65	78	78	78	65	65	65	mW
Reverse Voltage V_R	5	5	5	5	5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	mA
Operation Temperature T_{OPR}	-30 to +80							°C
Storage Temperature T_{STG}	-40 to +85							°C
Lead Soldering Temperature T_{SOL}	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)							°C

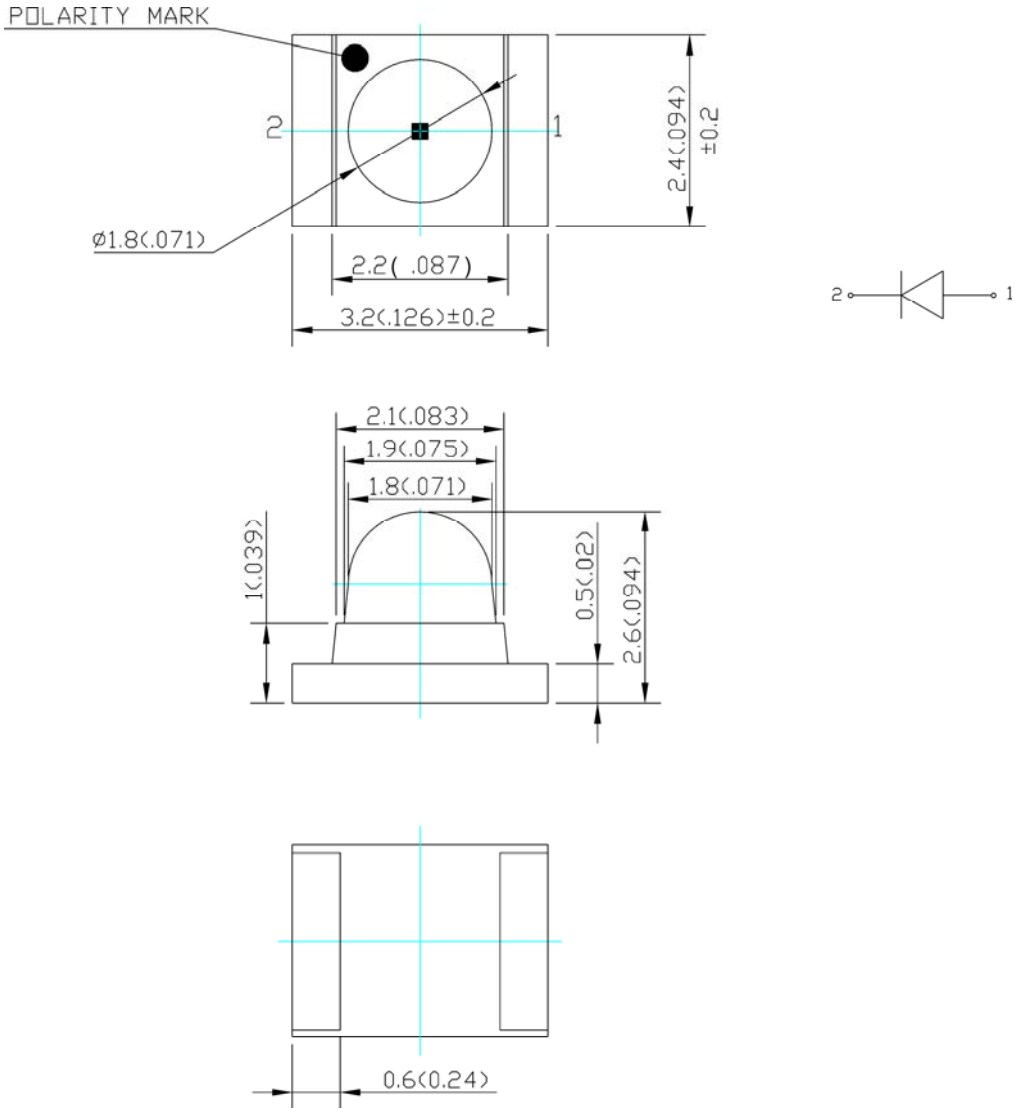
■ Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=20mA)

Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
	Emitted Color	Material	λP (nm)		Typ	Max	Min.	Typ.	
BL-LS3224A0E1UDR	Ultra Red	AlGaAs	655	Water Clear	2.10	2.50	100	300	50
BL-LS3224A0E1UHR	Ultra Red	AlGaAs	645		2.10	2.60	150	400	
BL-LS3224A0E1UEC	Ultra Red	AlGaAs	630		2.10	2.50	350	500	
BL-LS3224A0E1UHD	Ultra Red	AlGaAs	618		2.10	2.60	200	600	
BL-LS3224A0E1UYO	Ultra Amber	AlGaInP	610		2.10	2.60	300	480	
BL-LS3224A0E1UYC	Ultra Yellow	AlGaInP	593		2.10	2.60	190	250	
BL-LS3224A0E1UGC	Ultra Green	AlGaInP	575		2.20	2.70	345	500	
BL-LS3224A0E1PGC	Ultra Pure Green	InGaN	525		3.50	4.20	350	500	
BL-LS3224A0E1BGC	Ultra Bluish Green	InGaN	505		3.50	4.20	300	400	
BL-LS3224A0E1DNB	Blue	InGaN	470		3.50	4.20	490	650	
BL-LS3224A0E1UBC	Ultra Blue	InGaN	470		3.50	4.20	480	600	
BL-LS3224A0E1UWC	Ultra White	InGaN	/		3.50	4.20	200	800	

■ Absolute maximum ratings (Ta=25°C)

Parameter	UDR	UHR	UE	UHD	UYO	UY	UG	PG	BG	DNB	UB	UW	Unit
Forward Current I_F	30	30	30	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P_d	78	78	78	78	78	78	78	78	78	78	78	78	mW
Reverse Voltage V_R	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	100	100	100	100	100	mA
Operation Temperature T_{OPR}	-30 to +80												°C
Storage Temperature T_{STG}	-40 to +85												°C
Lead Soldering Temperature T_{SOL}	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)												°C

■ Package configuration & Internal circuit diagram

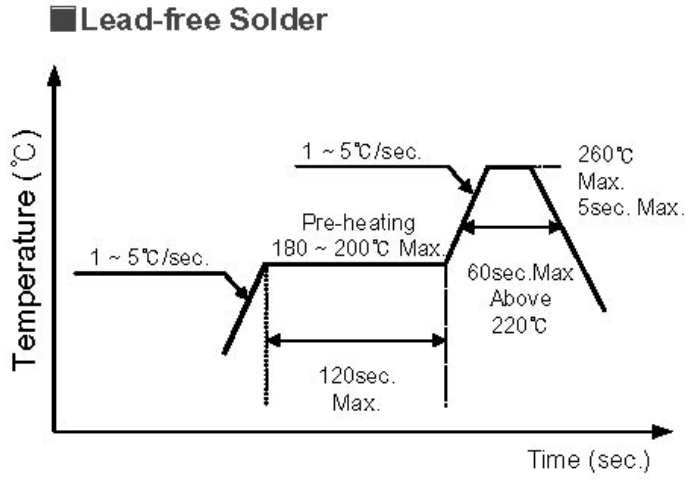


Notes:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.25(0.01")unless otherwise noted.
3. Specifications are subject to change without notice.

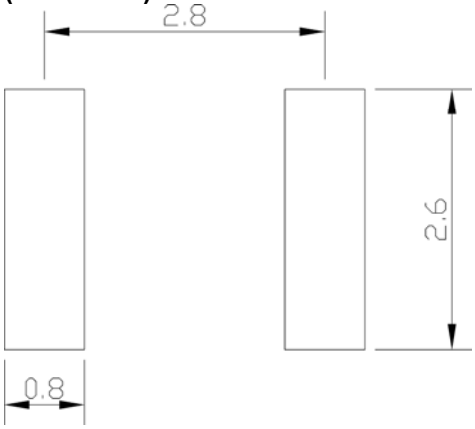
■ Tape Specifications

Smt Reflow Solding Instructions

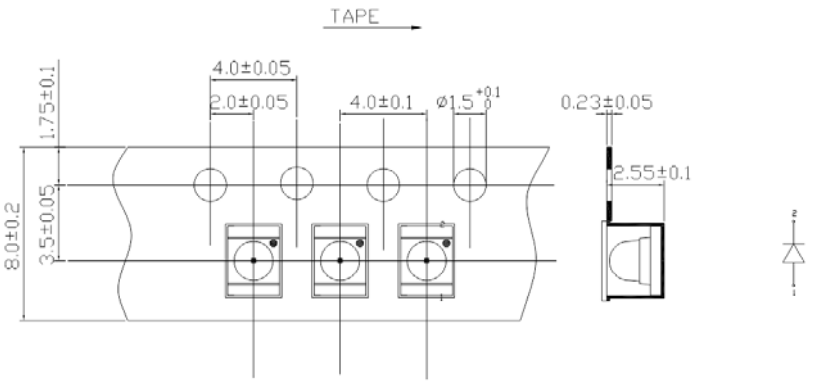
Number of reflow process shall be less than 2 times
and cooling process to normai temperature is required
between first and second soldering process



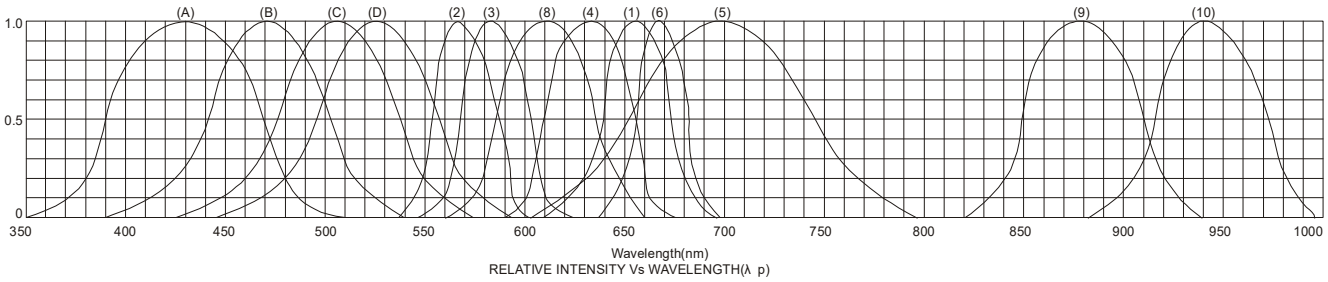
Recommended Soldering Pattern
(Units:mm)



Tape Specifications
(Units:mm)

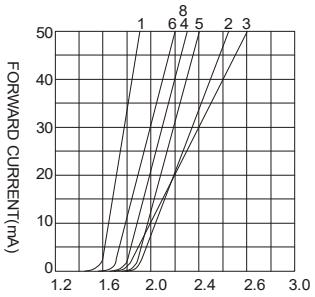


Typical electrical-optical characteristics curves:

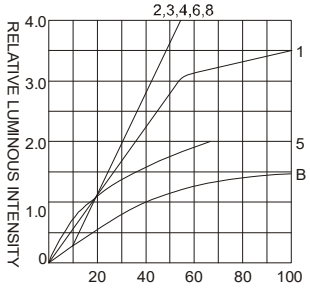


RELATIVE INTENSITY Vs WAVELENGTH(λ p)

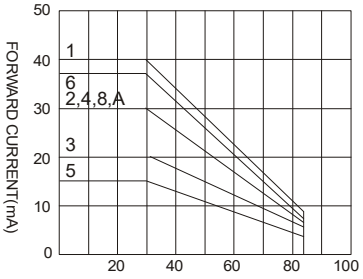
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue
(B) - InGaN/SiC 470nm/Blue
(C) - InGaN/SiC 505nm/Ultra Green
(D) - InGaAl/SiC 525nm/Ultra Green



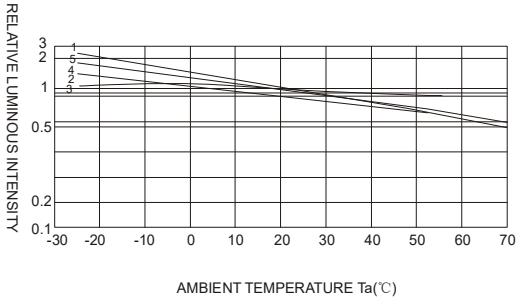
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



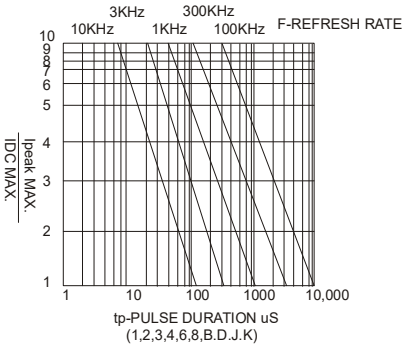
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



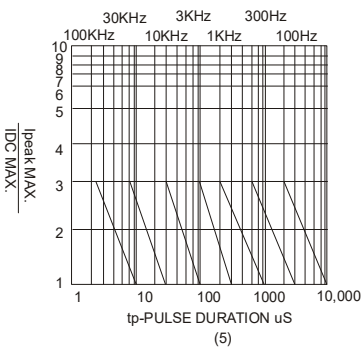
AMBIENT TEMPERATURE Ta(℃)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta(℃)



tp-PULSE DURATION uS
(1,2,3,4,6,8,B.D.J.K)



tp-PULSE DURATION uS
(5)

NOTE:25℃ free air temperature unless otherwise specified

■ Packing and weighting

