

SMD LED LAMP

LS0603XX

Features:

- Ø 1.6mmx0.8mm SMD, 0.8mm THICKNESS
- Ø Mono-color type
- Ø Compatible with automatic placement equipment
- Ø WIDE VIEWING ANGLE.
- Ø IDEAL FOR BACKLIGHT AND INDICATOR.
- Ø PACKAGE: 4KPCS/REEL
- Ø RoHs Compliance



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

Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (lv) Unit:mcd		Viewing Angle 2θ/2 (deg)
	Emitted Color	Material	λp f (nm)		Typ	Max	Min.	Typ.	
					LS0603HC	Red	GaP	700	
LS0603SRC	Super Red	AlGaAs	660	1.85	2.30	5	13		
LS0603LRC	Super Red	AlGaAs	660	1.85	2.30	10	28		
LS0603URC	Ultra Red	AlGaAs	660	1.95	2.50	20	45		
LS0603EC	Orange	GaAsP	640	2.10	2.70	1	6		
LS0603YC	Yellow	GaAsP	583	2.15	2.70	1	6		
LS0603GC	Green	GaP	568	2.30	2.70	6	15		

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

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	Emitted Color	Material	λp (nm)		Typ	Max	Min.	Typ.	
					LS0603UDR	Ultra Red	AlGaAs	655	
LS0603UHR	Ultra Red	AlGaAs	645	2.10	2.60	30	80		
LS0603UEC	Ultra Orange	AlGaAs	630	2.10	2.50	30	80		
LS0603UHD	Ultra Orange	AlGaAs	618	2.10	2.60	50	110		
LS0603UYO	Ultra Amber	AlGaInP	610	2.10	2.60	30	80		
LS0603UYC	Ultra Yellow	AlGaInP	593	2.10	2.60	25	70		
LS0603UGC	Ultra Green	AlGaInP	575	2.20	2.70	10	40		
LS0603PGC	Ultra Pure Green	InGaN	525	3.50	4.20	50	100		
LS0603BGC	Ultra Bluish Green	InGaN	505	3.50	4.20	50	110		
LS0603DNB	Blue	InGaN	470	3.50	4.20	10	33		
LS0603UBC	Ultra Blue	InGaN	470	3.50	4.20	10	30		
LS0603UWC	Ultra White	InGaN	/	3.50	4.20	40	200		

Absolute maximum ratings (Ta=25°C)

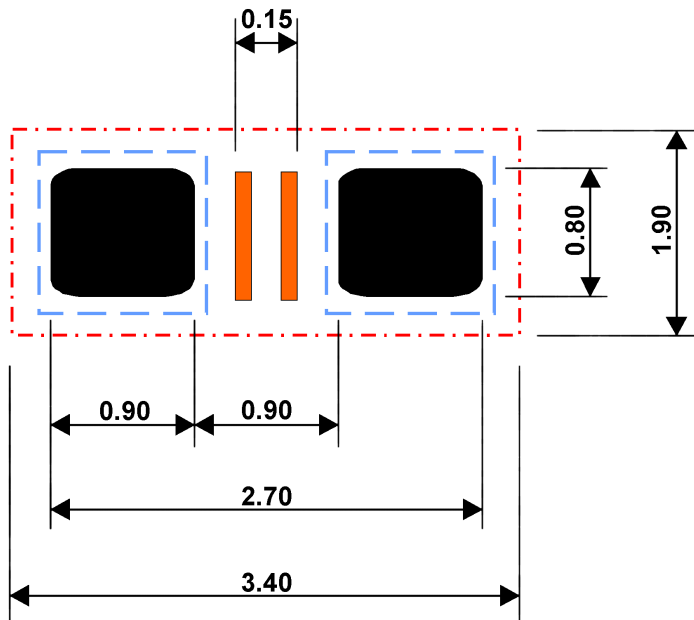
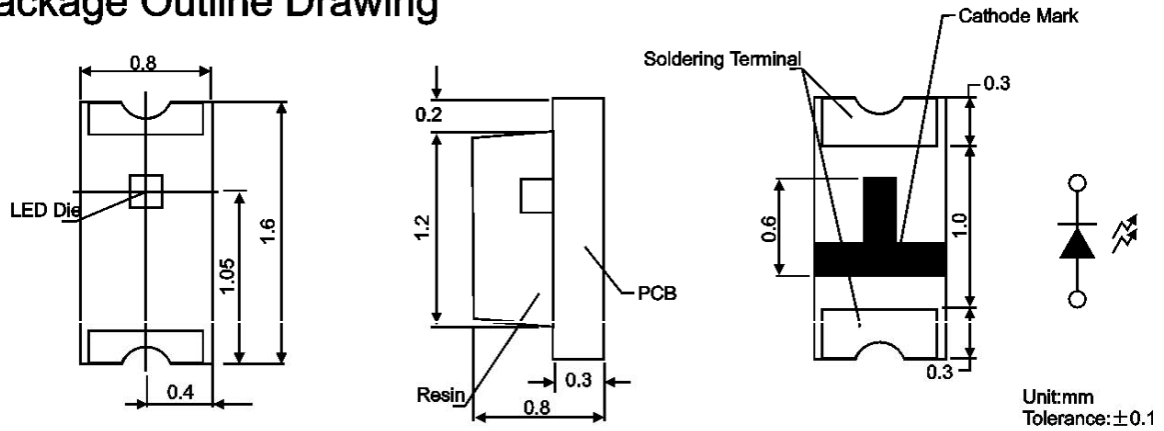
Parameter	UDR	UHR	UE	UHD	UYO	UY	UG	PG	BG	DNB	UB	UW	Unt
Forward Current I _F	30	30	30	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P _d	78	78	78	78	78	78	78	78	78	78	78	78	mW
Reverse Voltage V _R	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I _{PF} (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	100	100	100	100	100	mA
Operation Temperature T _{OPR}	-30 to +80												°C
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Package configuration & Internal circuit diagram

Package Outline Drawing



Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

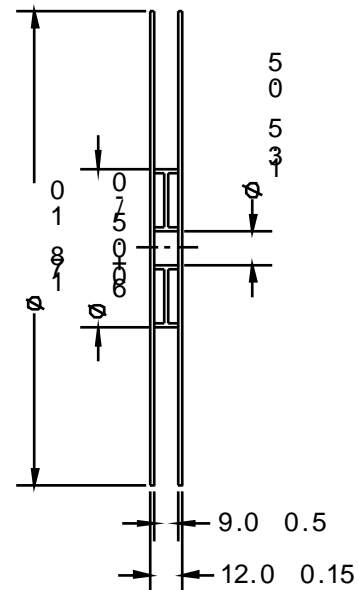
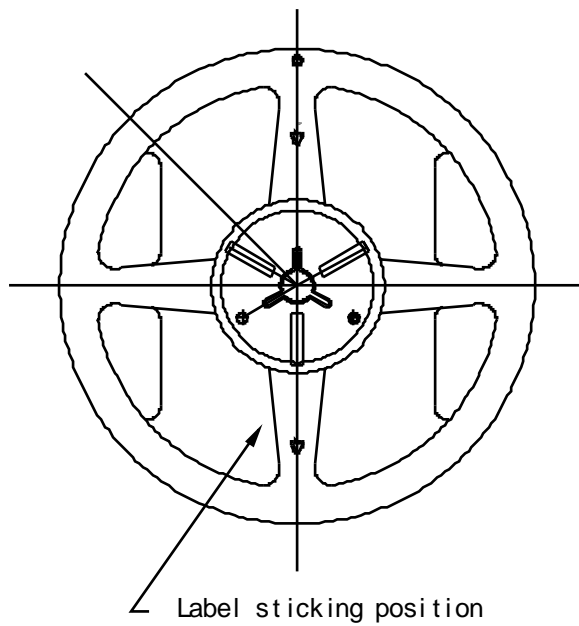
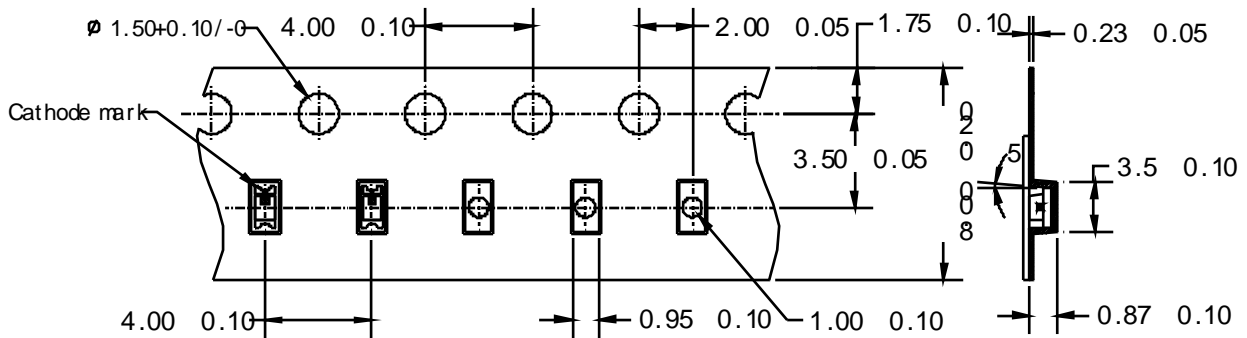
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Tape Specifications

Unit: mm

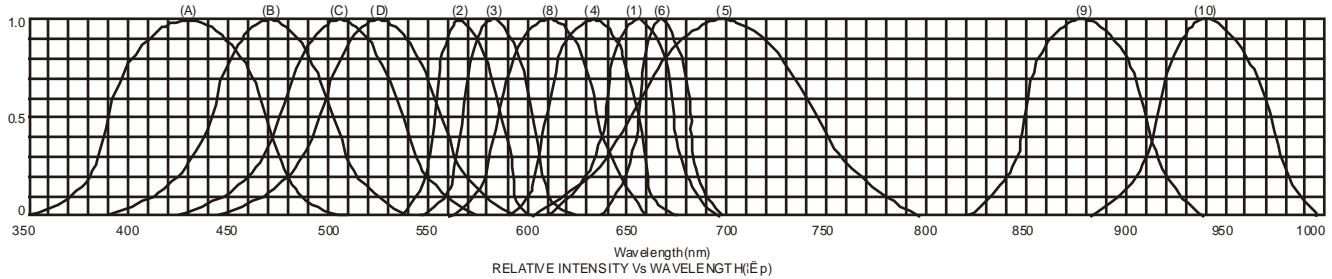
Tolerance: 0.1



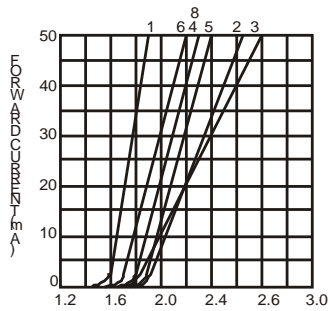
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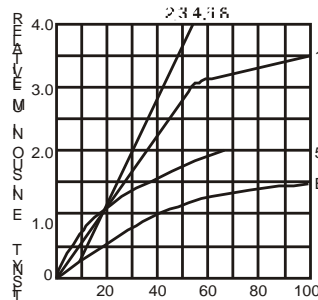
Typical electrical-optical characteristics curves:



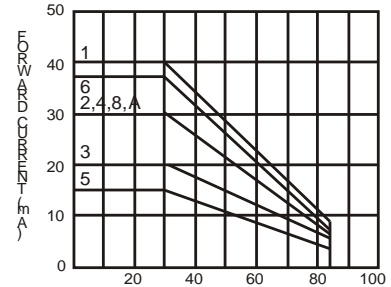
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAlAs 880nm
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) - GaN/SiC 430nm/Blue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



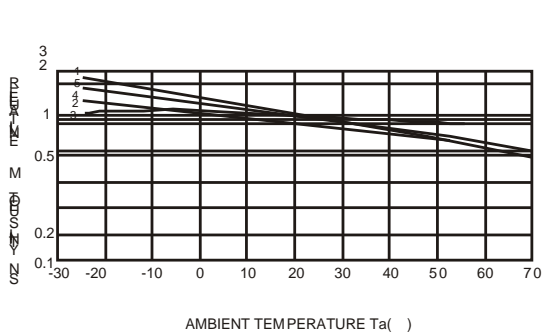
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



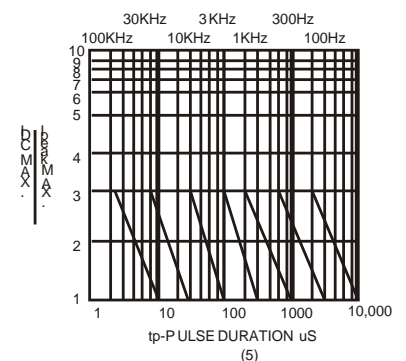
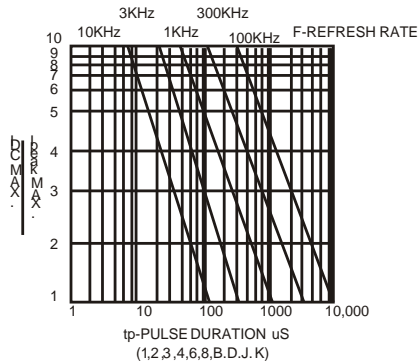
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta()



NOTE:25 free air temperature unless otherwise specified

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Packing and weighting

