

Cylindrical flat top, Tower Type LED lamp

BL-L213

Features:

- 2 mm flat top Cylindrical Tower Type LED Lamps..
- Ultra brightness.
- Choice of various viewing angles.
- Full color Display application.
- IC compatible /Low current capability.
- RoHs Compliance



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

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		Angle 2θ1/2 (deg)
	Emitted Color	Material	λP (nm)						
					Typ	Max	Min.	Typ.	
BL-L213SRD	Hi Red	AlGaAs,SH	660	Color Dif.	1.85	2.20	30	80	70
BL-L213GD	Green	Gap/Gap	570		2.20	2.50	10	50	
BL-L213URD	Ultra Red	AlGaAs,DDH	660		1.95	2.20	100	200	
BL-L213SRC	Hi Red	AlGaAs,SH	660	Water Clear	1.85	2.20	50	200	50
BL-L213LRC	Super Red	AlGaAs,DH	660		1.85	2.20	200	500	
BL-L213URC	Ultra Red	AlGaAs,DDH	660		1.95	2.20	500	700	
BL-L213UEC	Ultra Red	AlGaInP	630		2.10	2.50	120	700	
BL-L213UYC	Ultra Yellow	AlGaInP	590		2.10	2.50	150	600	
BL-L213UGC	Ultra Green	AlGaInP	574		2.20	2.50	50	800	
BL-L213PGC	Ultra Pure Green	InGaN	525		3.10	4.10	400	1200	
BL-L213BGC	Ultra Bluish Green	InGaN	505		3.80	4.50	400	1000	
BL-L213UBC	Ultra Blue	InGaN	470		2.70	4.20	400	1200	
BL-L213UWC	Ultra White	InGaN	/		2.70	4.20	400	2500	

■ Absolute maximum ratings (Ta=25°C)

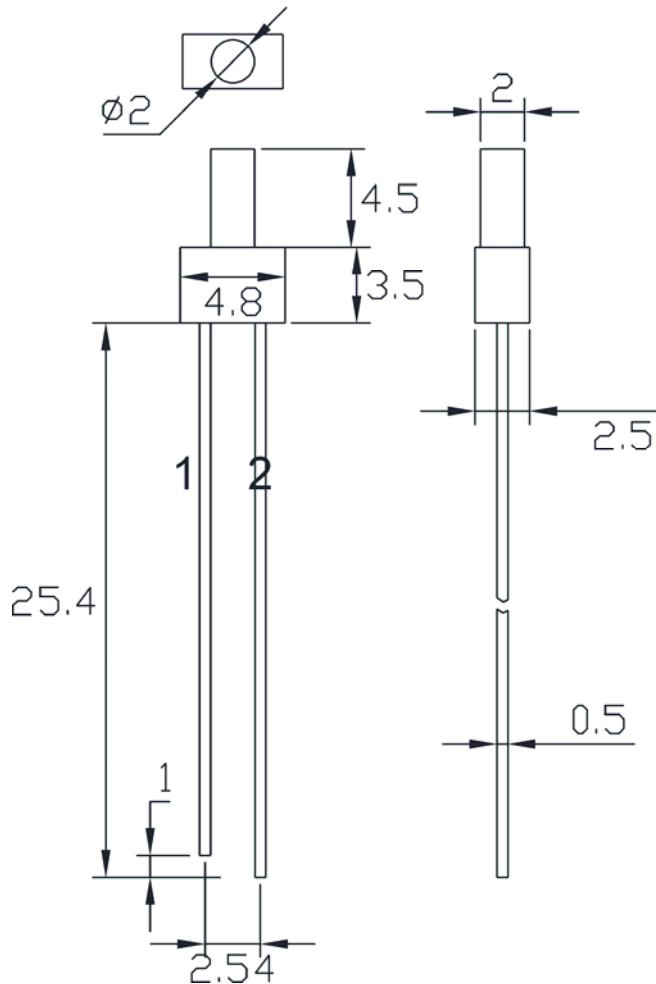
Parameter	G	SR	LR	UR	UE	UY	UG	PG	BG	UB	UW	Unit
Forward Current I_F	30	25	25	25	30	30	30	30	30	30	30	mA
Power Dissipation P_d	65	60	60	60	65	65	75	110	110	120	120	mW
Reverse Voltage V_R	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	150	150	150	150	150	150	100	100	100	mA
Operation Temperature T_{OPR}	-40 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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■ Package configuration & Internal circuit diagram

BL-L213 Series



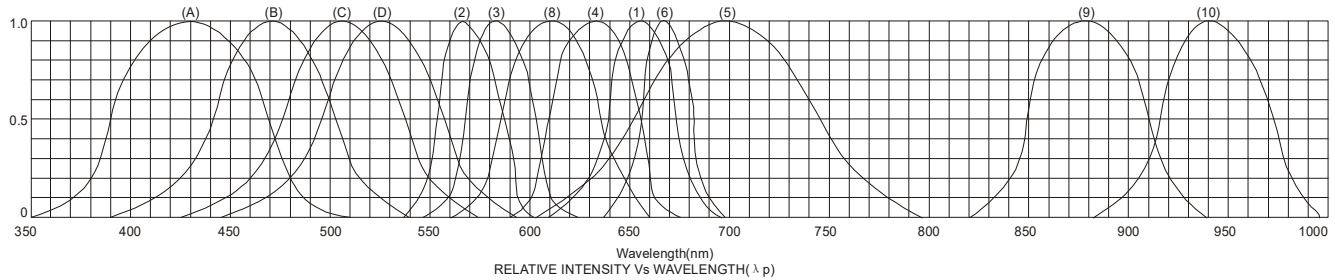
Notes:

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.

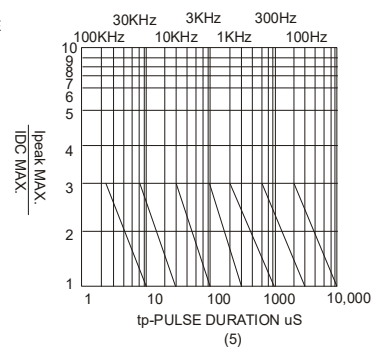
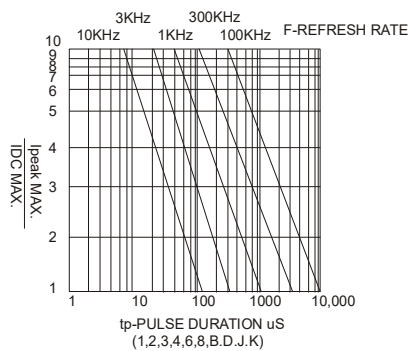
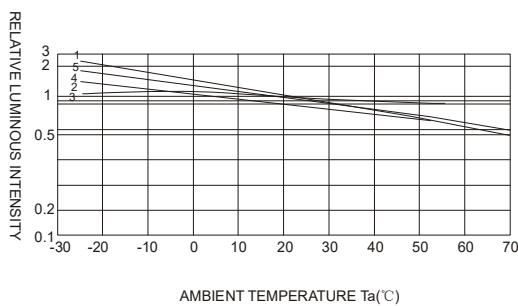
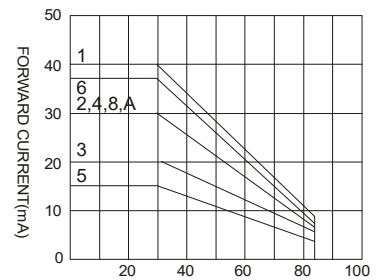
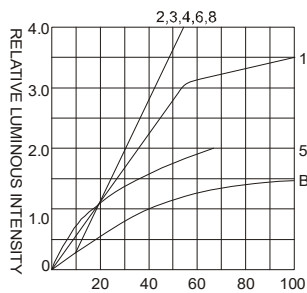
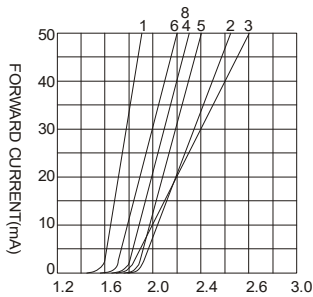
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■ Typical electrical-optical characteristics curves:



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



NOTE: 25°C free air temperature unless otherwise specified

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■ **Packing and weighting**

