



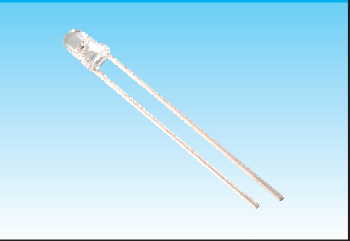
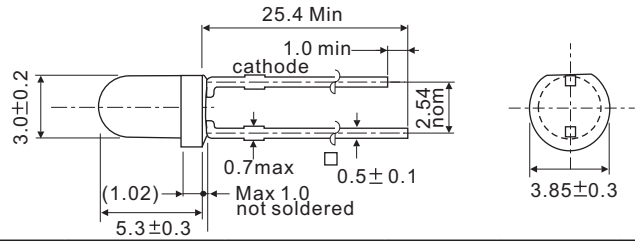
White Extra Bright LEDs

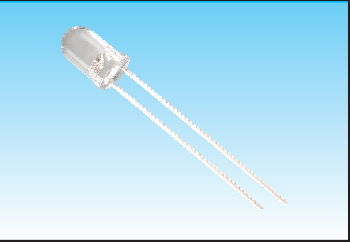
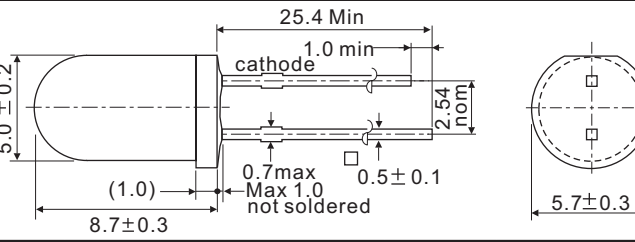
(sensitive to static electricity)

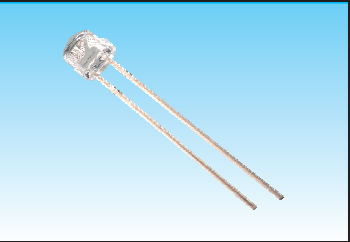
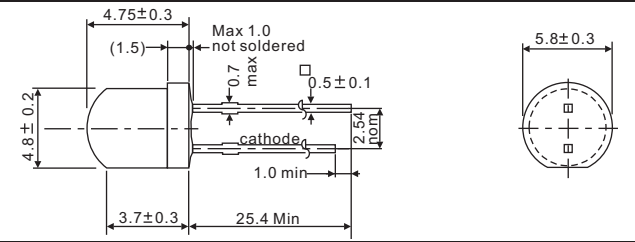
color temperature : 5000°k ~ 6500°k

Ta=25°C

Device No	Color		CIE Coordinates Typical		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Material	Lens	X	Y		IV1	IV2	

φ 3									UNIT:mm		
			GalN/GaN	Water clear	HB3b-449AWE	0.30	0.31	3.3	4000	8000	29
					HB3b-449AWF	0.30	0.31	3.3	12000	21000	
					HB3b-449AWE-B	0.30	0.31	3.3	2500	4500	40
					HB3b-449AWF-B	0.30	0.31	3.3	8000	16000	

φ 5									UNIT:mm		
			GalN/GaN	Water clear	HB5-439AWE	0.30	0.31	3.3	8000	16000	22
					HB5-439AWF	0.30	0.31	3.3	15000	27000	
					HB5-439AWE-C	0.30	0.31	3.3	4000	8000	43
					HB5-439AWF-C	0.30	0.31	3.3	12000	21000	

φ 5									UNIT:mm		
			GalN/GaN	Water clear	HB5G-439AWE	0.30	0.31	3.3	1800	3500	80
					HB5G-439AWF	0.30	0.31	3.3	2600	5200	


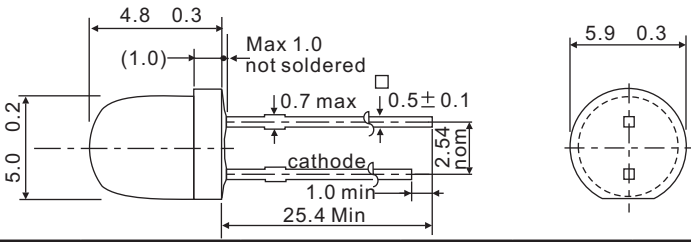
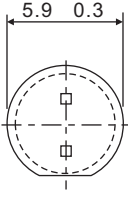
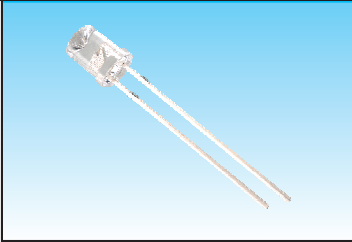
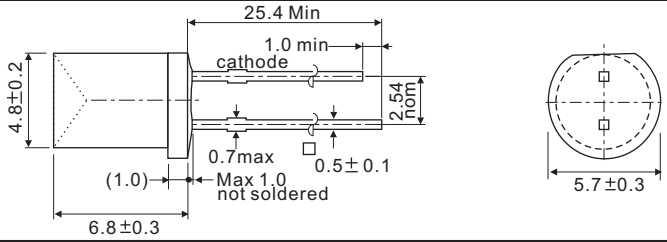
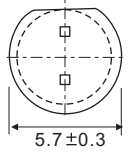
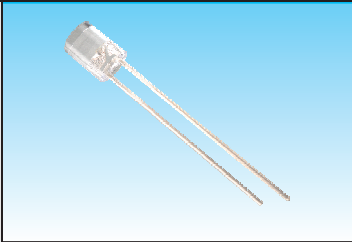
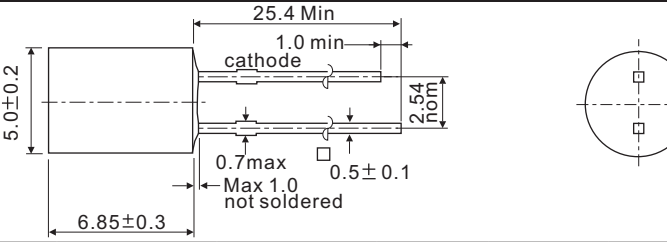
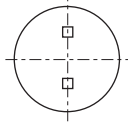
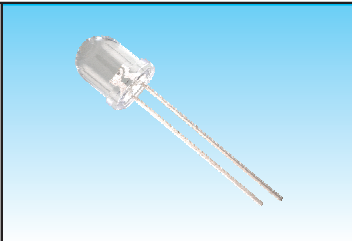
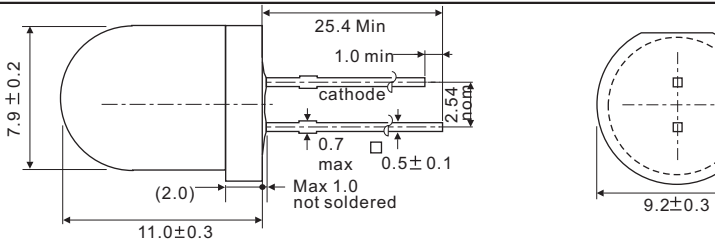
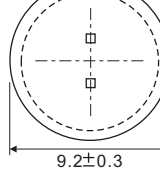
IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

White Extra Bright LEDs



(sensitive to static electricity)

Ta=25°C

Device No	Color		CIE Coordinates Typical		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Material	Lens	X	Y		IV1	IV2	
								
			UNIT:mm					
HB5H-469AWE	GaInN/GaN	Water clear	0.30	0.31	3.3	1600	3100	65
HB5H-469AWF			0.30	0.31	3.3	2300	4600	
								
			UNIT:mm					
HB5C-439AWE	GaInN/GaN	Water clear	0.30	0.31	3.3	180	360	135
HB5C-439AWF			0.30	0.31	3.3	250	500	
								
			UNIT:mm					
HC5-439AWE	GaInN/GaN	Water clear	0.29	0.31	3.3	1600	3200	125
HC5-439AWF			0.29	0.31	3.3	2800	5500	
								
			UNIT:mm					
HB8a-439AWE	GaInN/GaN	Water clear	0.29	0.28	3.3	4000	8000	30
HB8a-439AWF			0.29	0.28	3.3	15000	27000	

IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

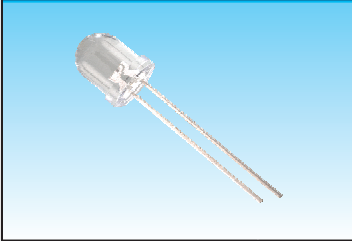
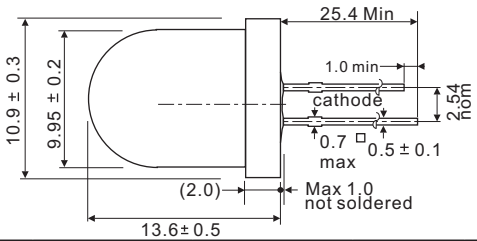


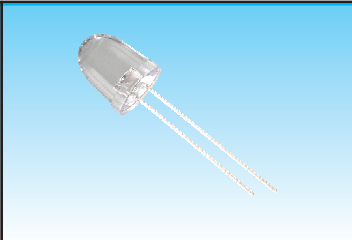
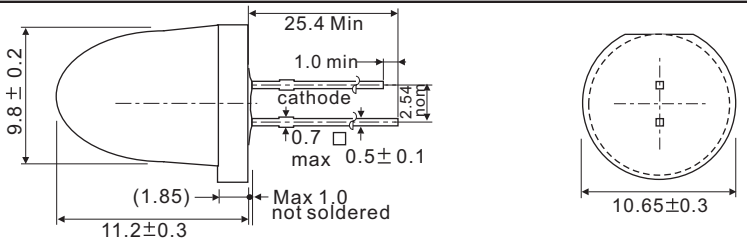
White Extra Bright LEDs

(sensitive to static electricity)

Ta=25°C

Device No	Color		CIE Coordinates Typical		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Material	Lens	X	Y		IV1	IV2	

									UNIT:mm
	HB10-439AWE	GaInN/GaN	Water clear	0.30	0.29	3.3	2000	5500	40
	HB10-439AWF			0.30	0.29	3.3	15000	27000	

									UNIT:mm
	HB10b-439AWE	GaInN/GaN	Water clear	0.30	0.29	3.3	10000	20000	6
	HB10b-439AWF			0.30	0.29	3.3	12000	34000	

IV1:Labsphere LED-1100 IV2:EXELTRON 2001.