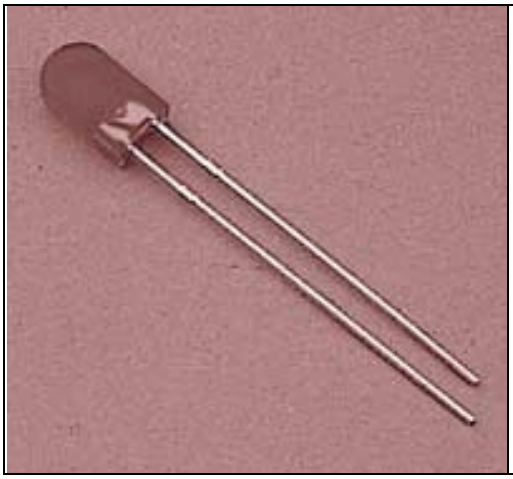
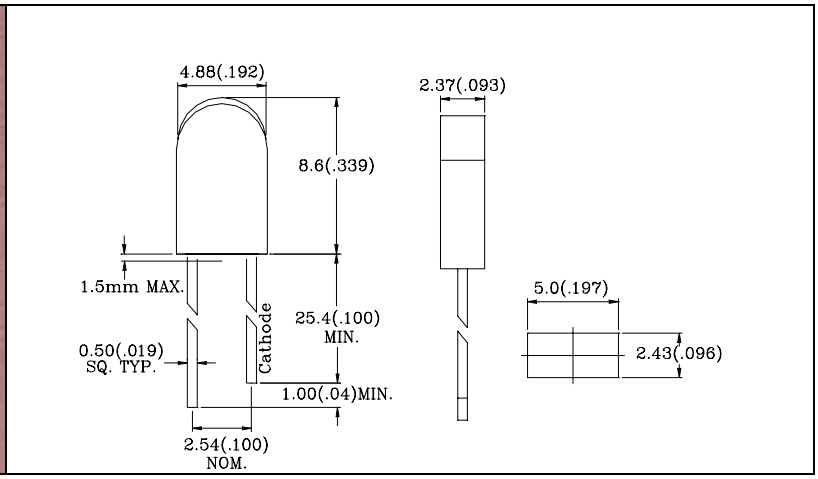
PARA LIGHT

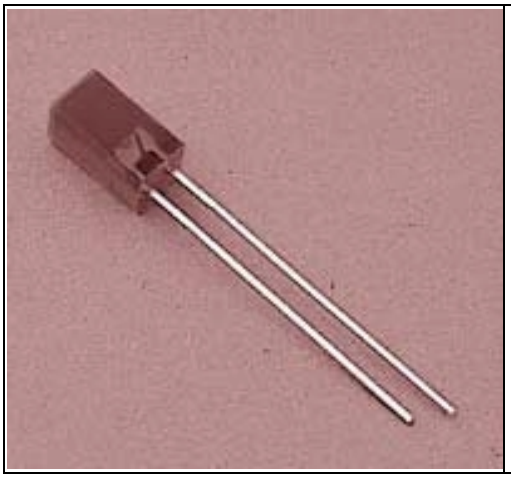
L-613XX 2.37x4.88x8.6mm TOMBSTONE TYPE LED LAMP

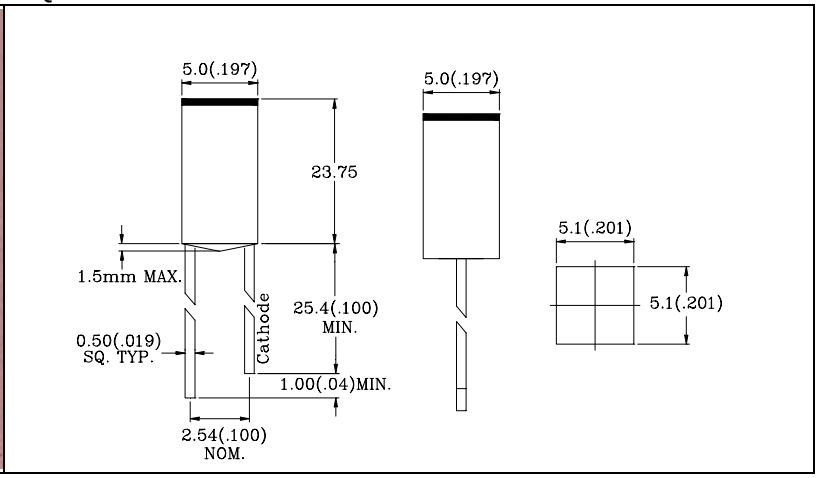




Part No.	Chip		Lens Color	Wave Length λ p(nm)	Electro-Optical Characteristics			View Angle (deg)
	Raw Material	Emitted Color			Vf(V)20mA		Iv(mcd)10mA	
					Typ.	Max.	Typ.	
L-613HD	GaP	Red	Red Diffused	700	2.1	2.8	6.0	100
L-613GD	GaP	Green	Green Diffused	565	2.1	2.8	12.5	100
L-613YD	GaAsP/GaP	Yellow	Yellow Diffused	585	2.1	2.8	12.5	100
L-613ED	GaAsP/GaP	Hi.effi Red	Red Diffused	635	2.0	2.8	15.0	100
L-613SRD	GaAlAs	Super Red	Red Diffused	660	1.8	2.4	100	100

L-643XX 5.0x5.0mm SQUARE LED LAMP





Part No.	Chip		Lens Color	Wave Length λ p(nm)	Electro-Optical Characteristics			View Angle (deg)
	Raw Material	Emitted Color			Vf(V)20mA		Iv(mcd)10mA	
					Typ.	Max.	Typ.	
L-643HD	GaP	Red	Red Diffused	700	2.1	2.8	5.0	150
L-643GD	GaP	Green	Green Diffused	565	2.1	2.8	10.0	150
L-643YD	GaAsP/GaP	Yellow	Yellow Diffused	585	2.1	2.8	10.0	150
L-643ED	GaAsP/GaP	Hi.effi Red	Red Diffused	635	2.0	2.8	12.0	150
L-643SRD	GaAlAs	Super Red	Red Diffused	660	1.8	2.4	80.0	150

1.All dimension are in millimeters (inches).
2.Tolerance is ±0.25 mm (0.01”) unless otherwise specified.