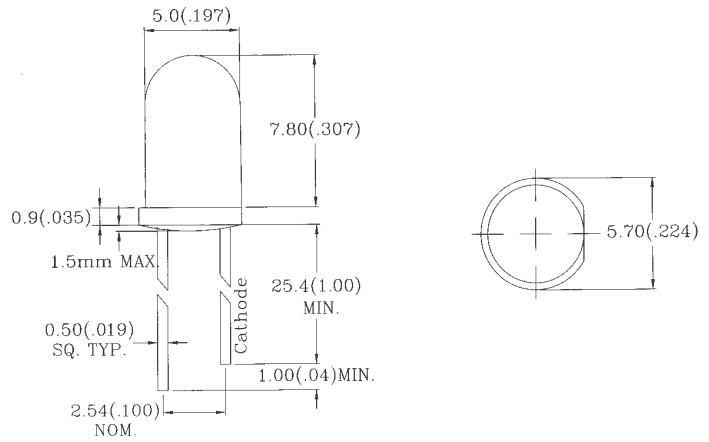
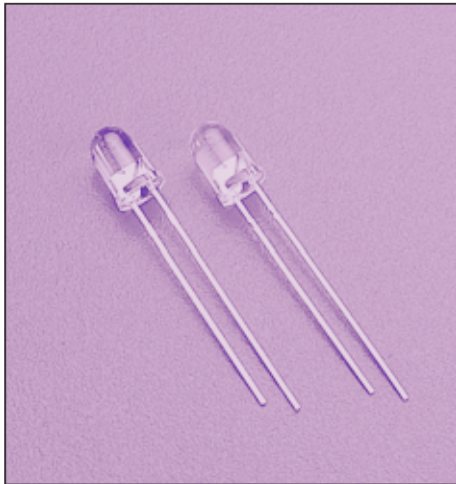




Part No.	Chip		Lens Color	Wave Length λ p(nm)	Electro-Optical Characteristics			View Angle (deg)
	Raw Material	Emitted Color			Vf(V)20mA		Iv(mcd)20mA	
					Typ.	Max.	Typ.	
L-513HD	GaP	Red	Red Diffused	700	2.3	2.8	8.0	110
L-513GD	GaP	Green	Green Diffused	565	2.2	2.8	20.0	110
L-513YD	GaAsP/GaP	Yellow	Yellow Diffused	585	2.1	2.8	15.0	110
L-513ED	GaAsP/GaP	Hi.effi Red	Red Diffused	635	2.1	2.8	30.0	110
L-513SRD	GaAlAs	Super Red	Red Diffused	660	1.8	2.2	45.0	110
L-513LRD	GaAlAs	Super Red	Red Diffused	660	1.8	2.2	80.0	110
L-513HURD	GaAlnP	Hi.effi Red	Red Diffused	628	2.0	2.5	180	110
L-513GT	GaP	Green	G.Transparent	565	2.2	2.8	200	15
L-513YT	GaAsP/GaP	Yellow	Y.Transparent	585	2.1	2.8	150	15
L-513ET	GaAsP/GaP	Hi.effi Red	R.Transparent	635	2.1	2.8	300	15
L-513SRT	GaAlAs	Super Red	R.Transparent	660	1.8	2.2	400	15
L-513LRT	GaAlAs	Super Red	R.Transparent	660	1.8	2.4	750	15
L-513HURT	GaAlnP	Hi.effi Red	R.Transparent	628	2.0	2.5	1800	15
L-513GC	GaP	Green	Water Clear	565	2.2	2.8	200	15
L-513LGC	GaP	Green	Water Clear	565	2.1	2.8	250	15
L-513VGC	GaP	Green	Water Clear	565	2.1	2.8	400	15
L-513YC	GaAsP/GaP	Yellow	Water Clear	585	2.1	2.8	150	15
L-513EC	GaAsP/GaP	Hi.effi Red	Water Clear	635	2.1	2.8	300	15
L-513SRC	GaAlAs	Super Red	Water Clear	660	1.8	2.2	400	15
L-513LRC	GaAlAs	Super Red	Water Clear	660	1.8	2.2	800	15
L-513HURC	GaAlnP	Hi.effi Red	Water Clear	628	2.0	2.5	1800	15
L-513LEC	GaAlInP	Super Orange	Water Clear	620	2.1	2.6	1300	15
L-513VEC	GaAlInP	Super Orange	Water Clear	620	2.2	2.6	3800	15
L-513UYC	GaAlInP	Yellow	Water Clear	592	2.0	2.6	1700	15
L-513VYC	GaAlInP	Yellow	Water Clear	592	2.2	2.6	2800	15
L-513LBC	GaInN	Blue	Water Clear	470	3.5	4.0	2500	15
L-513LWC	GaInN	White	Water Clear		3.5	4.0	5000	12
L-513SPGC	GaInN	Green	Water Clear	505	3.5	4.0	3500	12
L-513LPGC	GaInN	Green	Water Clear	525	3.5	4.0	4000	12

1.All dimension are in millimeters (inches).

2.Tolerance is ± 0.25 mm (0.01") unless otherwise specified.