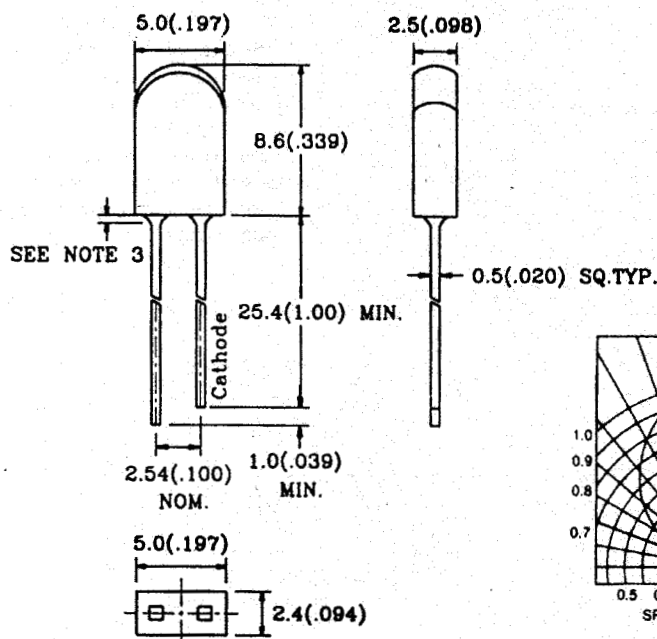


L-613XX series ... **2.5x5mm Tomestone Type LED LAMP**

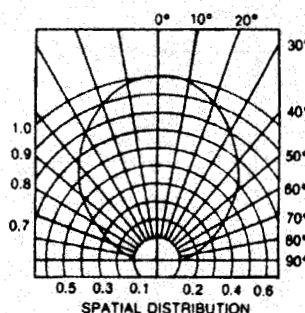
MAIN FEATURES :
 ◎ **ROUNDED & RECTANGULAR SHAPE**
 ◎ **I.C. COMPATIBLE**
 ◎ **LOW POWER CONSUMPTION**
 ◎ **LONG LIFE-SOLID STATE RELIABILITY**

◆ **PACKAGE DIMENSIONS**

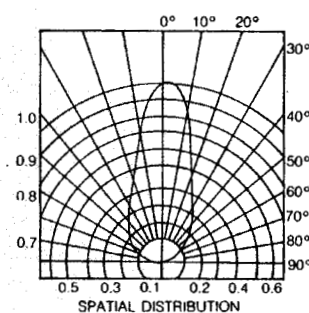


Notes:

1. All Dimension are in millimeter.
2. Tolerance is $\pm 0.25\text{mm}(0.010")$ unless otherwise specified.
3. Protruded resin under flange is $1.5\text{mm}(0.59")$ max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specification are subject to change without notice.



L-613XD



L-613XC

◆ **SELECTION GUIDE AND APPLICATION INFORMATION (RATINGS AT 25°C AMBIENT)**

Part No.	Chip		Lens Color	Wave Length $\lambda_p(\text{nm})$	Absolute Maximum Ratings				Electro-Optical Characteristics				View Angle	
	Raw Material	Emitted Color			$\Delta\lambda$ nm	P_d mW	I_f mA	I_f (Peak)	$V_f(V)$	I_f (Rec)	I_v (mcd)			
L-613HD	GaP	Bright Red	Red Diffused	700	90	45	15	50	1.7	2.1	2.8	5~10	0.8	30.0
L-613ED	GaAsP/GaP	Hi.effi Red	Red Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	5.0	15.0
L-613ED-E	GaAsP/GaP	Orange	Orange Dffused	635	45	100	30	160	1.7	2.0	2.8	10~20	5.0	15.0
L-613GD	GaP	Green	Green Diffused	565	30	100	30	160	1.7	2.1	2.8	10~20	3.0	12.5
L-613YD	GaAsP/GaP	Yellow	Yellow Diffused	585	30	100	30	160	1.7	2.1	2.8	10~20	3.0	12.5
L-613AD	GaAsP/GaP	Amber	Amber Diffused	585	30	100	30	160	1.7	2.1	2.8	10~20	3.0	12.5
L-613I D	GaAlAs	Hi.effi Red	Red Diffused	625	20	60	20	160	1.6	1.8	2.1	10~20	15.0	50.0
L-613SRD	GaAlAs	Super Red	Red Diffused	660	20	60	20	160	1.6	1.8	2.1	10~20	50.0	100
L-613LRD	GaAlAs	Super Red	Red Diffused	660	20	60	20	160	1.6	1.8	2.1	10~20	100	200
L-613URD	GaAlAs	Super Red	Red Diffused	660	20	60	20	160	1.6	1.8	2.1	10~20	200	300
L-613HC	GaP	Bright Red	Water Clear	700	90	45	15	50	1.7	2.1	2.8	5~10	5.0	15.0
L-613EC	GaAsP/GaP	Hi.effi Red	Water Clear	635	45	100	30	160	1.7	2.0	2.8	10~20	12.0	50.0
L-613GC	GaP	Green	Water Clear	565	30	100	30	160	1.7	2.1	2.8	10~20	8.0	30.0
L-613YC	GaAsP/GaP	Yellow	Water Clear	585	30	100	30	160	1.7	2.1	2.8	10~20	8.0	30.0
L-613I C	GaAlAs	Hi.effi Red	Water Clear	625	20	60	20	160	1.6	1.8	2.1	10~20	50.0	150
L-613SRC	GaAlAs	Super Red	Water Clear	660	20	60	20	160	1.6	1.8	2.1	10~20	150	500
L-613LRC	GaAlAs	Super Red	Water Clear	660	20	60	20	160	1.6	1.8	2.1	10~20	500	700
L-613URC	GaAlAs	Super Red	Water Clear	660	20	60	20	160	1.6	1.8	2.1	10~20	700	1000

◆ **ABSOLUTE MAXIMUN RATING: (Ta=25°C)**

Reverse Voltage	: 5 Volt
Reverse Current(Vr = 5V)	: 10 μ A
Operating Temperature Range	: -40°C to +85°C
Storage Temperature Range	: -40°C to +100°C
Lead Soldering Temperature	: 260°C for 5 Seconds
(1.6mm(1/16inch) from body)	

◆ **ELECTRO-OPTICAL CHARACTERISTICS: (Ta=25°C)**

Para meter Description	Symbol	Unit
Spectral Line half-Width	$\Delta\lambda$	nm
Power Dissipation	P_d	mW
Peak Forward Current (Duty 1/10,@KHz)	$I_f(\text{Peak})$	mA
Recommended Operation Current	$I_f(\text{Rec})$	mA
Average Luminous intensity (If = 10mA)	I_v	mcd