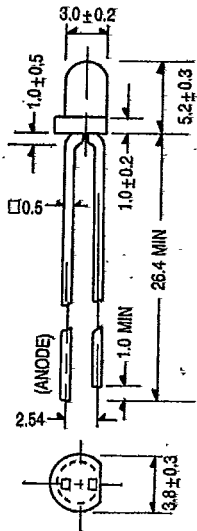


204 SERIES (T-1) Round Type LED Lamps (3.0mm)

MAIN FEATURES:

- HIGH INTENSITY AND LOW COST.
- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- POPULAR T-1 DIAMETER, 25.4mm LENGTH OF LEADS PACKAGE.
- RELIABLE AND RUGGED.

Package Dimensions:



DESCRIPTION:

The 204RD/RT series lamps are made with GaAsP red light emitting diodes. The 204 HD/HT, 204GD/GT/SGD/SGT and 204 PYD/PYT series are made with GaP bright red, green and yellow light emitting diodes respectively. The 204ID/IT, 204YD/YT and 204ED/ET series are made with GaAsP on GaP hi-efficiency red, yellow and orange light emitting diodes respectively. General purpose and selected brightness versions of both color-diffused and transparent lens types give different design possibilities.

ABSOLUTE MAXIMUM RATINGS: (Ta = 25°C)

Reverse Voltage	: 5 Volt
Reverse Current (Vr=5V)	: 10µA
Operating Temperature Range:	-40°C To 85°C
Storage Temperature Range	: -40°C To 100°C
Lead Soldering Temperature	: 260°C For 5 Seconds (1.6 mm (1/16 inch) From Body)

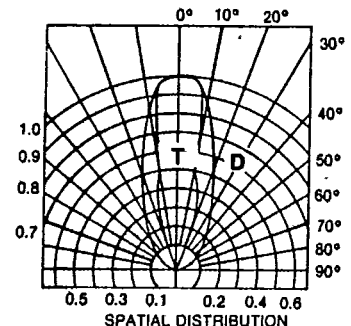
- NOTE:
1. All dimensions are in millimeters.
 2. Lead spacing is measured where the leads emerge from the package.
 3. Protruded resin under flange 1.5 mm (0.059") Max.

PART SELECTION AND APPLICATION INFORMATION (RATINGS AT 25°C AMBIENT)

Type No.	Chip		Lens Color	Peak Wave Length λp(nm)	Absolute Maximum Ratings				Electro-Optical Characteristic						Viewing Angle 2θ½ (deg)	Remark
	Material	Emitted Color			Δλ (nm)	Pd (mw)	If(mA)	Peak If(mA)	Vf(V)			Rec If(mA)	Iv(mcd)			
									Min.	Typ.	Max.		Min.	Typ.		
EL204RD	GaAsP	Red	Red Diffused	655	40	110	40	200	1.5	1.7	2.0	10~20	0.5	1.0	40	**
EL204HD	GaP	Bright Red	Red Diffused	697	90	45	15	50	1.7	2.1	2.8	5~10	0.5	1.6	40	**
EL204ID	GaAsP/GaP	Hi-Eff Red	Red Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	1.1	6.0	40	**
EL204SGD	GaP	Green	Green Diffused	560	30	100	30	160	1.7	2.1	2.8	10~20	1.1	6.0	40	*
EL204GD	GaP	Green	Green Diffused	565	30	100	30	160	1.7	2.1	2.8	10~20	1.1	6.0	40	*
EL204PYD	GaP	Yellow	Yellow Diffused	570	30	100	30	160	1.7	2.0	2.8	10~20	1.1	4.5	40	
EL204YD	GaAsP/GaP	Yellow	Yellow Diffused	585	35	85	20	160	1.7	2.0	2.8	10~20	1.1	4.5	40	
EL204ED	GaAsP/GaP	Orange	Orange Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	1.1	4.5	40	
EL204RT	GaAsP	Red	Red Trans-	655	40	110	40	200	1.5	1.7	2.0	10~20	1.1	4.0	20	*
EL204HT	GaP	Bright Red	Red Trans-	697	90	45	15	50	1.7	2.1	2.8	5~10	2.5	10.0	20	
EL204IT	GaAsP/GaP	Hi-Eff Red	Red Trans-	635	45	100	30	160	1.7	2.0	2.8	10~20	3.7	17.0	20	*
EL204SGT	GaP	Green	Green Trans-	560	30	100	30	160	1.7	2.1	2.8	10~20	3.0	15.0	20	
EL204GT	GaP	Green	Green Trans-	565	30	100	30	160	1.7	2.1	2.8	10~20	3.0	15.0	20	
EL204PYT	GaP	Yellow	Yellow Trans-	570	30	100	30	160	1.7	2.0	2.8	10~20	3.5	15.0	20	
EL204YT	GaAsP/GaP	Yellow	Yellow Trans-	585	35	85	20	160	1.7	2.0	2.8	10~20	3.5	15.0	20	
EL204ET	GaAsP/GaP	Orange	Orange Trans-	635	45	100	30	160	1.7	2.0	2.8	10~20	3.7	17.0	20	

TEST CONDITION FOR EACH PARAMETER:

PARAMETER:	SYMBOL	UNIT	TEST CONDITION
REVERSE VOLTAGE	Vr	VOLT	Vr = 5.0 Volt
REVERSE CURRENT	Ir	µA	
FORWARD VOLTAGE	Vf	VOLT	
LUMINOUS INTENSITY	Iv	MCD	If = 20mA
VIEWING ANGLE	2θ½	DEGREE	If = 10mA
SPECTRAL LINE HALF-WIDTH	Δλ	nm	If = 20mA
POWER DISSIPATION	Pd	mW	
PEAK FORWARD CURRENT (Duty 1/10 @ 1KHz)	If (Peak)	mA	
RECOMMENDED OPERATING CURRENT	If (Rec)	mA	



Remark: **The most popular types *Common types The rest are special types
 Hi-Eff Red - High Efficiency Red
 Trans - Transparent