

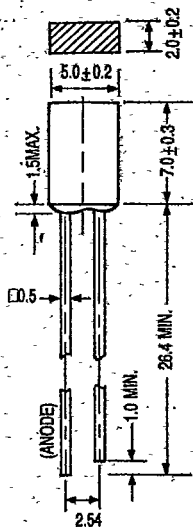
### 523 SERIES

Rectangular Type LED Lamps (2.0x5.0mm)

#### MAIN FEATURES:

- HIGH LIGHT OUTPUT.
- RECTANGULAR LIGHT EMITTING SURFACE.
- MOST SUITABLE FOR BACK-LIGHTING LEGENDS.
- IDEAL AS FLUSH MOUNTED PANEL INDICATORS.
- LONG LIFE-SOLID STATE RELIABILITY.

#### Package Dimensions:



#### DESCRIPTION:

The 523 series are solid state lamps encapsulated in a rectangular borderless epoxy package to allow creation of uninterrupted light emitting areas. The 523RD is made with GaAsP diode emitting red light. The 523HD, 523GD/SGD and 523PYD are made with GaP diodes emitting bright red, green and yellow light respectively. The 523ID, 523YD, 523ED are made with GaAsP on GaP diodes emitting hi-efficiency red, yellow and orange light respectively. All lenses are color-diffused.

#### 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 [1.6 mm (1/16 inch) From Body]	:	260°C For 5 Seconds

- 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)			Iv (mcd)	Iv (mA)			
									Min.	Typ.	Max.			Min.		
EL523RD	GaAsP	Red	Red Diffused	655	40	110	40	200	1.5	1.7	2.0	10~20	0.2	0.4	124	
EL523HD	GaP	Bright Red	Red Diffused	697	90	45	15	50	1.7	2.1	2.8	5~10	0.4	0.6	124	*
EL523ID	GaAsP/GaP	Hi-Eff Red	Red Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	0.5	2.0	124	
EL523SGD	GaP	Green	Green Diffused	560	30	100	30	160	1.7	2.1	2.8	10~20	0.5	2.0	124	
EL523GD	GaP	Green	Green Diffused	565	30	100	30	160	1.7	2.1	2.8	10~20	0.5	2.0	124	*
EL523PYD	GaP	Yellow	Yellow Diffused	570	30	100	30	160	1.7	2.0	2.8	10~20	0.5	1.8	124	
EL523YD	GaAsP/GaP	Yellow	Yellow Diffused	585	35	85	20	160	1.7	2.0	2.8	10~20	0.5	1.8	124	
EL523ED	GaAsP/GaP	Orange	Orange Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	0.5	2.0	124	

#### TEST CONDITION FOR EACH PARAMETER:

##### PARAMETER:

- REVERSE VOLTAGE
- REVERSE CURRENT
- FORWARD VOLTAGE
- LUMINOUS INTENSITY
- VIEWING ANGLE
- SPECTRAL LINE HALF-WIDTH
- POWER DISSIPATION
- PEAK FORWARD CURRENT (Duty 1/10 @ 1KHz)
- RECOMMENDED OPERATING CURRENT

##### SYMBOL

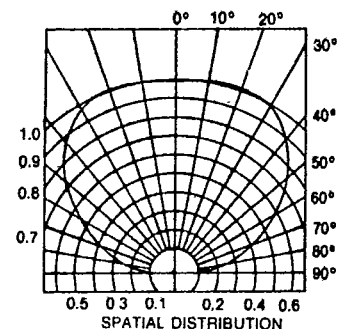
- Vr
- Ir
- Vf
- Iv
- 2θ½
- Δλ
- Pd
- If (Peak)
- If (Rec)

##### UNIT

- VOLT
- µA
- VOLT
- MCD
- DEGREE
- nm
- mW
- mA
- mA

##### TEST CONDITION

- Vr = 5.0 Volt
- If = 20mA
- If = 10mA
- If = 20mA



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