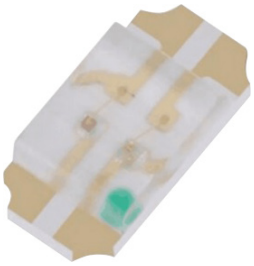
Surface Mount Red/Blue Chip LED - 1206

multicomp PRO



Features

- 3.2mm × 1.6mm SMT LED, 0.7mm Thickness.
- Wide Viewing Angle.
- Ideal for Backlight and Indicator.
- Various Colours and Lens Types Available.

RoHS Compliant

Applications

- Automotive: Backlighting in dashboard and switch.
- Telecommunication: Indicator and Backlighting in telephone and fax.
- Flat Backlight for LCD switch and symbol.

Device Selection Guide

Part No.	Chip		Lens Colour
MP005936	Material	Emitted Colour	Water Clear
	(InGaAlP)	Red	
	(InGaN)	Blue	

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Red	Blue	Unit
Power Dissipation	P_D	62		mW
Forward Current	I_F	25		mA
Peak Forward Current*1	I_{FP}	100		mA
Reverse Voltage	V_R	5		V
Operating Temperature	T_{opr}	-40°C To +85°C		
Storage Temperature	T_{stg}	-40°C To +85°C		

Notes:

*1: Pulse width≤0.1ms, Duty cycle≤1/10

Electrical / Optical Characteristics at T_A=25°C

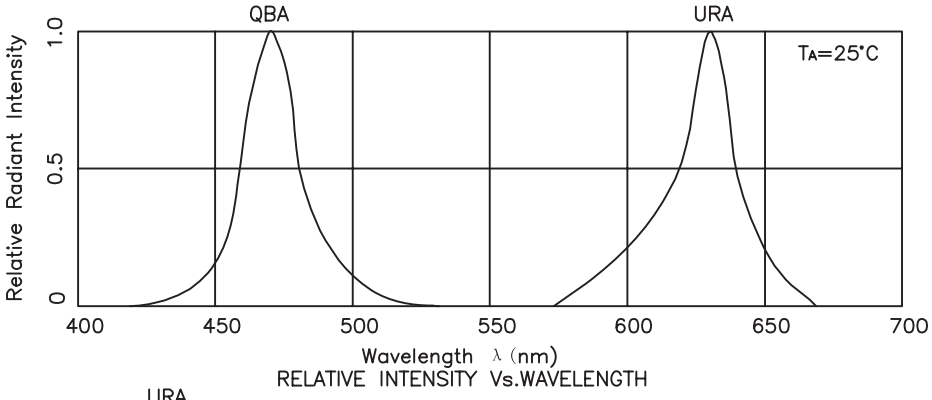
Parameter	Symbol	Device	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V_F	Red Blue	—	2.2 3.3	2.5 3.6	V	IF=20mA
Reverse Current	I_R		—	—	10	μA	VR=5V
Dominate Wavelength	λ_D		617 464	—	629 473	nm	IF=20mA
Luminous Intensity	I_V		170 170	—	385 385	mcd	IF=20mA
Viewing Angle	2θ1/2		—	120 120	—	Deg.	IF=20mA

Remarks:

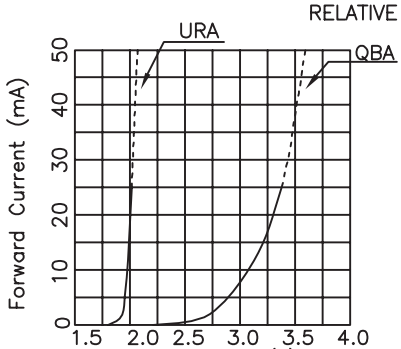
If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or chromaticity), the typical accuracy of the sorting process is as follows:

1. wavelength: ±1nm
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

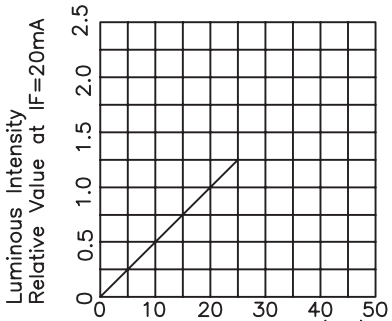
Typical Electrical/Optical Characteristics Curves



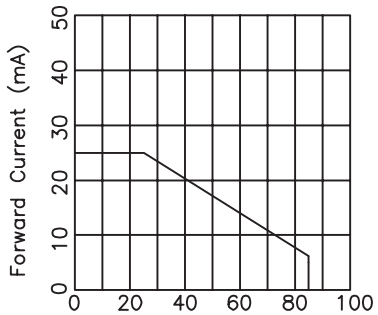
RELATIVE INTENSITY Vs.WAVELENGTH



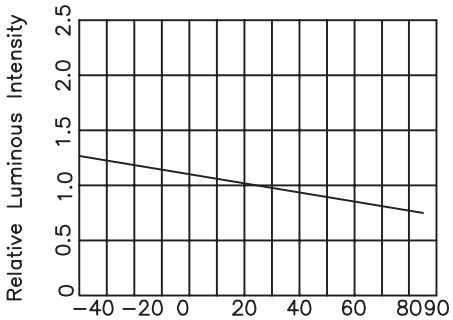
FORWARD CURRENT Vs.
FORWARD VOLTAGE



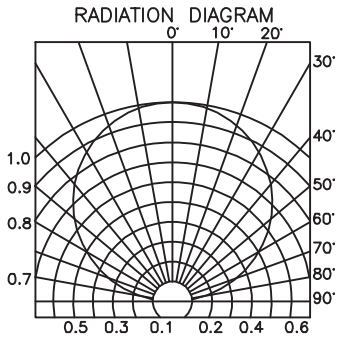
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT Vs.
DERATING CURVE

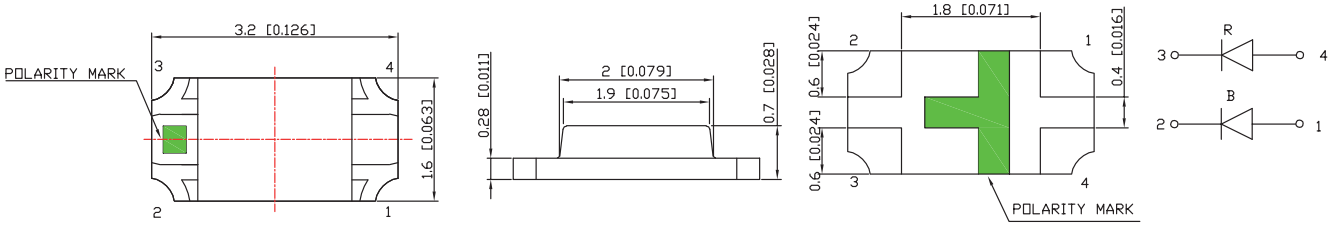


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



Surface Mount Red/Blue Chip LED - 1206

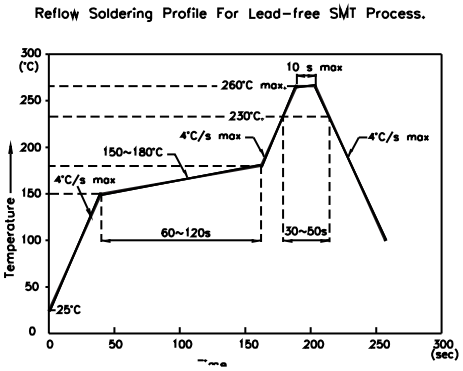
Diagram



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ±0.15 unless otherwise noted.
3. Specifications are subject to change without notice.

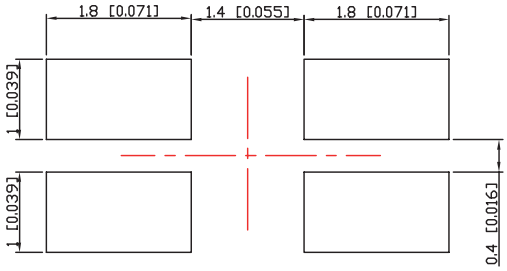
Soldering Profile



Notes

1. We recommend the reflow temperature 245°C. (±5°C) The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern



Part Number Table

Description	Part Number
SMD Chip LED, 1206, Red / Blue, 385mcd, 120°	MP005936