

Surface Mount White Chip LED - 0603

multicomp^{PRO}

RoHS
Compliant



Features

- Dimensions: 1.6mm × 0.8mm × 0.7mm.
- Wide Viewing Angle.

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 Material	Emitting Colour
MP005925	(InGaN)	Water clear

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	100	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 TA=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Forward Voltage (one circuit)	V _F	2.8	—	3.6	V	I _F =20mA
Reverse Current (one circuit)	I _R	—	—	10	μA	V _R =5V
Chromaticity Coordinates	X	—	0.28	—		I _F =20mA
	Y		0.29	—		
Luminous Intensity	I _v	385	—	845	mcd	I _F =20mA
Viewing Angle	2θ _{1/2}	—	120	—	Deg.	I _F =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. Chromaticity Coordinates: ±0.005
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

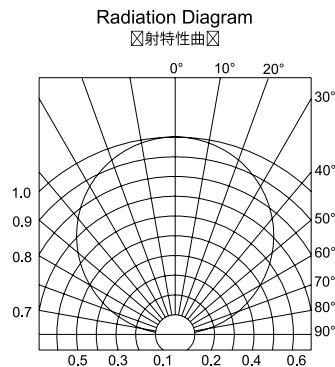
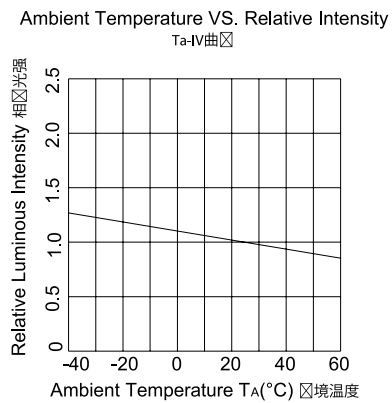
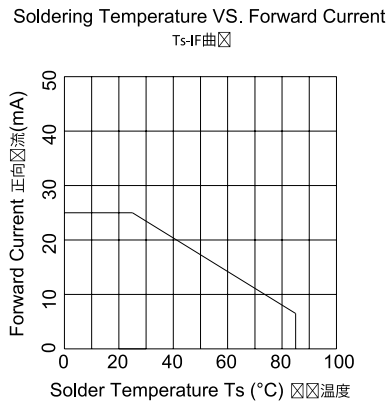
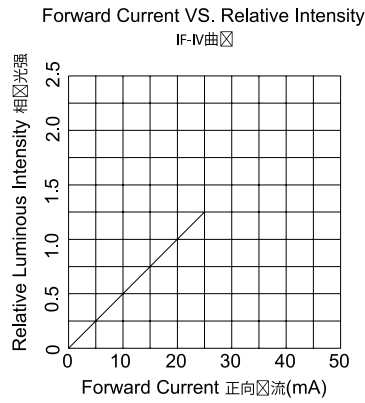
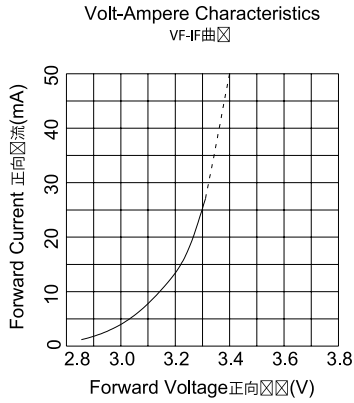
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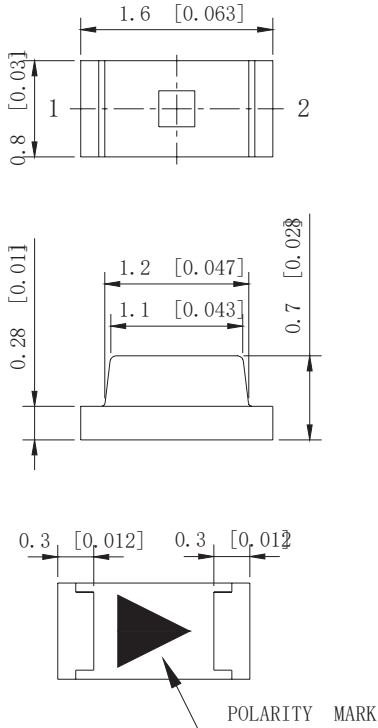
Typical Electrical/Optical Characteristics Curves



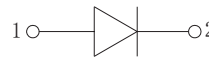
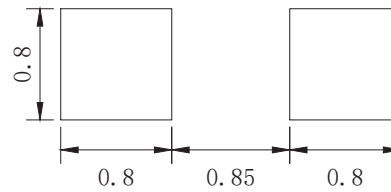
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Package Dimensions



Recommended Soldering Pattern



Notes:

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

VF Rank

Rank	VF(V)		Condition
	Min	Max	
G1	2.8	2.9	IF=20mA
G2	2.9	3	
H1	3	3.1	
H2	3.1	3.2	
J1	3.2	3.3	
J2	3.3	3.4	
K1	3.4	3.5	
K2	3.5	3.6	

Tolerance: $\pm 0.05V$

IV Rank

Rank	IV(mcd)		Condition
	Min	Max	
V	650	845	IF=20mA
W	845	1100	
X	1100	1400	

Tolerance: $\pm 15\%$

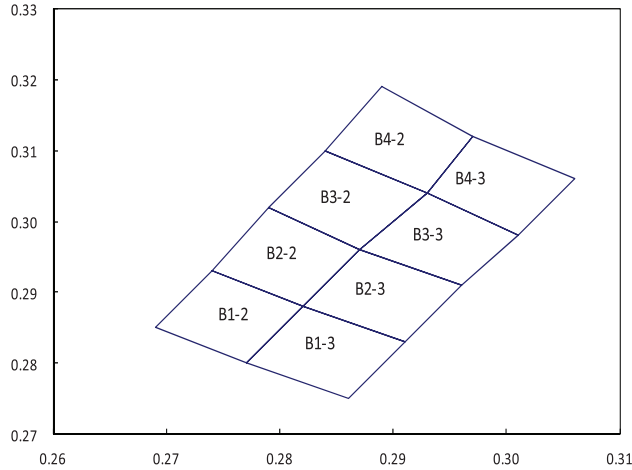
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X/Y Rank



Bin	x	y	Bin	x	y
B1-2	0.274	0.293	B1-3	0.282	0.288
	0.282	0.288		0.291	0.283
	0.277	0.28		0.286	0.275
	0.269	0.285		0.277	0.28
B2-2	0.279	0.302	B2-3	0.287	0.296
	0.287	0.296		0.296	0.291
	0.282	0.288		0.291	0.283
	0.274	0.293		0.282	0.288
B3-2	0.284	0.310	B3-3	0.293	0.304
	0.293	0.304		0.301	0.298
	0.287	0.296		0.296	0.291
	0.279	0.302		0.287	0.296
B4-2	0.289	0.319	B4-3	0.297	0.312
	0.297	0.312		0.306	0.306
	0.293	0.304		0.301	0.298
	0.284	0.31		0.293	0.304

Tolerance:±0.005

Part Number Table

Description	Part Number
SMD Chip LED, 0603, White, 1400mcd, 120°	MP005925

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