# mail

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# HSMF-C150/C15A Bi Color Surface Mount ChipLED Data Sheet



Lead (Pb) Free RoHS 6 fully compliant

Caution: This LED is Class 1A ESD sensitive. Please observe appropriate precautions during handling and processing.

### **Package Dimensions**



Polarity	HSMF-C150	HSMF-C15A
1-2	Green	Amber
③—}—④	Red	Red

• All dimensions are in mm(inches).

• Tolerance ±0.1mm(±0.004in) unless otherwise specified.

# **Device Selection Guide**

Part Number	Color	Package description
HSMF-C150	AllnGaP Red / AllnGaP Green	Untinted, Diffused
HSMF-C15A	AllnGaP Red / AllnGaP Amber	Untinted, Diffused

## Absolute Maximum Value at TA=25°C

Parameter	AllnGaP Red	AllnGaP Green	AllnGaP Amber	Unit
Forward current	25	20	25	mA
Power dissipation	60	48	60	mW
Operating temperature	-40 to 85			°C
Storage temperature	-40 to 85			°C

# Optical Characteristics at T<sub>A</sub>=25°C, If=20mA

Color	Luminous intensity	v lv(mcd)	Peak wavelength λp(nm)	Dominant wavelength λd(nm)	Viewing angle 201/2(°)
	Min	Тур	Тур	Тур	Тур
AllnGaP Red	18.0	79.0	644	632	170
AllnGaP Green	18.0	45.0	570	572	170
AllnGaP Amber	28.50	55.0	595	592	170

• Luminous intensity tolerance ±15%.

# Electrical Characteristics at T<sub>A</sub>=25°C, If=20mA

Color	Forward voltage Vf(V)		Reverse voltage Vr(V) at Ir=100µA	Thermal resistance Rθjp(°C/W)
	Тур	Мах	Min	Тур
AllnGaP Red	2.0	2.4	5	325
AllnGaP Green	2.1	2.4	5	325
AllnGaP Amber	1.9	2.4	5	325

• Forward voltage tolerance 0.1V.

• Reverse voltage Indicates product final testing, long terms reverse bias is not recommended.



















### Storage condition:

5 to 30°C @60% RH max

Baking is required under the condition

- (a) Humidity indicator card is >10% when read at  $23\pm5^{\circ}$ C.
- (b) Device exposed to factory conditions <30°C/60% RH more than 672 hours.

Baking recommended condition: 60±5°C for 20 hours.

#### Luminous Intensity Bin

Bin	Min(mcd)	Max(mcd)
Μ	18.0	28.5
Ν	28.5	45.0
Р	45.0	71.5
Q	71.5	112.5
R	112.5	180.0
S	180.0	285.0

Tolerance  $\pm 15\%$ 

#### Red color bin

Bin	Min(nm)	Max(nm)
-	620.0	635.0

Tolerance ±1nm

#### Green color bin

Bin	Min(nm)	Max(nm)
A	561.5	564.5
В	564.5	567.5
С	567.5	570.5
D	570.5	573.5
E	573.5	576.5

Tolerance ±0.5nm

#### Amber color bin

Bin	Min(nm)	Max(nm)
A	582.0	584.5
В	584.5	587.0
С	587.0	589.5
D	589.5	592.0
E	592.0	594.5
F	594.5	597.0

Tolerance ±0.5nm

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