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Dialight

Home> 5988710307F

Part Number: **5988710307F**

General Description

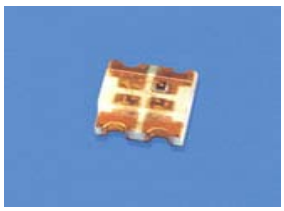
Lamp Type	Tri-Color
Lens Color	Non-Diffused
Compliancy	EIA-481-1
Series	598
Configuration	0606(1.6MM X 1.6MM X 0.7MM)
Description	SMD LED 0606 PACKAGE, TRI-COLOR
Package Options	Tape and Reel

Absolute Maximum Ratings (Ta = 25°)

Forward Current mA	20mA
Reverse Current	10 µA@ Vr = 5V
Forward Current Pulsed	100mA
Derating	from 80° = .75mA/°C
Solder Temperature	260° for 10 sec
Operating Temperature	-40~+100
Storage Temperature	-40~+100
ESD	2000

Operating Characteristics

	Red	Green	Blue
Color	Red	Green	Blue
LED Type	AlInGaP	InGaN	InGaN
Luminous Intensity Min	40	90	60
Luminous Intensity Typical	60	120	90
Luminous Intensity Max	80	220	140
Forward Voltage Min	1.9	2.8	2.8
Dominant Wavelength Min	630nm	520nm	465nm
Dominant Wavelength Typical	635nm	525nm	470nm
Dominant Wavelength Max	645nm	530nm	475nm



5988710307F

check stock

RoHS COMPLIANT

This is a
RoHS Compliant Product
To learn more click here

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Power Dissipation Max	44mW	70mW	70mW



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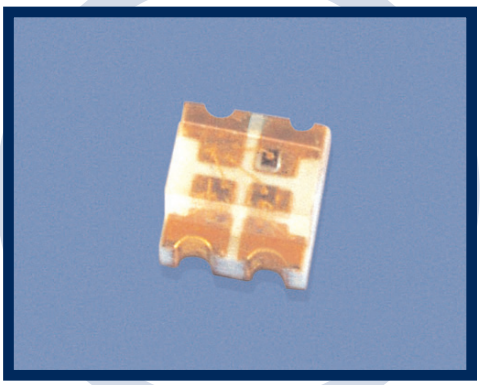
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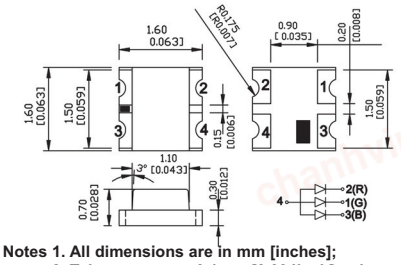
Micro LED® SMD LED
"598 SERIES" 0606 PACKAGE
(1.6mm X 1.6mm X 0.7mm) Tri-Color

FEATURES / BENEFITS

- Compatible with automatic placement equipment
- RoHS compliant
- Packaged in 8mm tape, 7" reel and 20 per strip
- Meets EIA-481-1 pkg. std.



Package Outline Drawing:



Notes 1. All dimensions are in mm [inches];
2. Tolerances are ±0.1mm [0.004inch] unless noted.

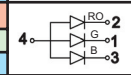
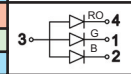
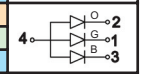
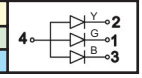
ORDERING INFORMATION

5 9 8 - 8 7 1 0 - 3 0 [7] F

Packaging Option

2	20 pieces on tape
7	7" reel 3000pcs / reel

PART NUMBERS

Dialight P/N	EMITTED COLOR	MATERIAL	LENS COLOR	LUMINOUS INTENSITY If = 20 ma			DOMINANT WAVELENGTH If = 20 ma			FORWARD VOLTAGE If = 20 ma			VIEWING ANGLE ° DEGREES	PINOUT
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX		
598-8710-307F	RED	AlInGaP	WATER CLEAR	40	60	80	630	635	645	1.9	2	2.2	140	SEE EXAMPLE
	GREEN	InGaN	WATER CLEAR	90	120	220	520	525	530	2.8	3.2	3.5	140	
	BLUE	InGaN	WATER CLEAR	60	90	140	465	470	475	2.8	3.2	3.5	140	
598-8720-307F	RED-ORANGE	AlInGaP	WATER CLEAR	60	80	150	620	625	630	1.8	2.2	2.4	140	
	GREEN	InGaN	WATER CLEAR	90	150	220	520	525	530	2.8	3	3.5	140	
	BLUE	InGaN	WATER CLEAR	40	60	90	465	470	475	3	3.2	3.5	140	
598-8721-307F	RED-ORANGE	AlInGaP	WATER CLEAR	60	80	150	620	625	630	1.8	2.2	2.4	140	
	GREEN	InGaN	WATER CLEAR	90	150	220	520	525	530	2.8	3	3.5	140	
	BLUE	InGaN	WATER CLEAR	40	60	90	465	470	475	3	3.2	3.5	140	
598-8730-307F	ORANGE	AlInGaP	WATER CLEAR	70	120	150	600	605	610	1.8	2.2	2.4	140	
	GREEN	InGaN	WATER CLEAR	150	220	300	520	525	530	2.8	3.2	3.5	140	
	BLUE	InGaN	WATER CLEAR	60	90	140	465	470	475	2.8	3.2	3.5	140	
598-8740-307F	YELLOW	AlInGaP	WATER CLEAR	90	110	150	587	590	595	1.8	2.2	2.4	140	
	GREEN	InGaN	WATER CLEAR	150	220	300	520	525	530	2.8	3.2	3.5	140	
	BLUE	InGaN	WATER CLEAR	60	90	140	465	470	475	2.8	3.2	3.5	140	

ABSOLUTE RATINGS (@ Ta = 25°C)

Dialight P/N	Power Dissipation	Forward Current	Reverse Voltage	Operating Temperature Range	Storage Temperature Range	Peak Pulse Forward Current	Electrostatic Discharge
	(mW)	(mA)	(V)	(°C)	(°C)	(mA)	(HBM)
598-8710-307F	44	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8720-307F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8721-307F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8730-307F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8740-307F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000

ENERGY STAR PARTNER A4703 UL REGISTERED FIRM ISO 9001 Dialight Corporation RoHS COMPLIANT

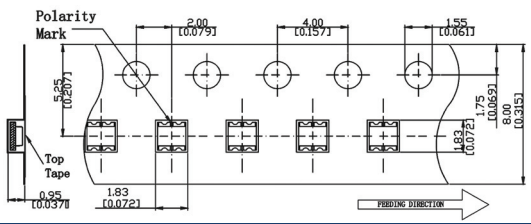
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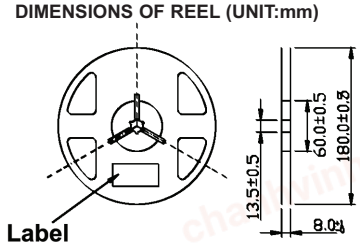
Micro LED® SMD LED
"598 SERIES" 0606 PACKAGE
(1.6mm X 1.6mm X 0.7mm) Tri-Color

MECHANICAL DIMENSIONS

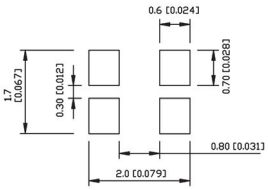
DIMENSIONS OF TAPE (UNIT:mm)

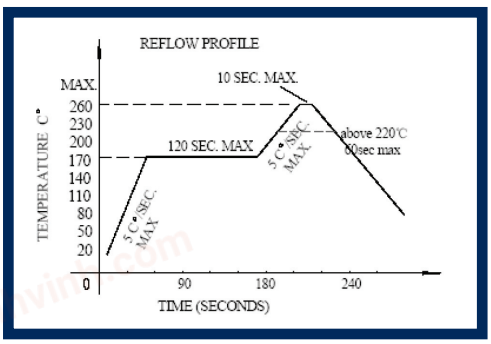


DIMENSIONS OF REEL (UNIT:mm)



Recommended Soldering Pattern For Reflow Soldering



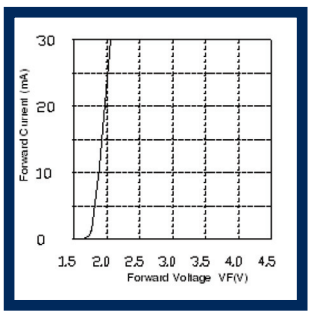


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

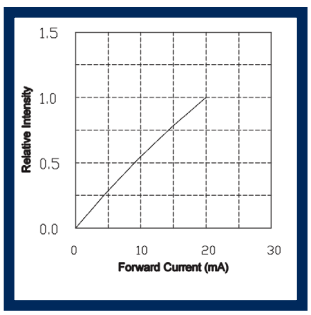
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

RED 630-642NM, RED-ORANGE 620-630NM, ORANGE 600-610NM, YELLOW 590-595NM, YELLOW 583-590NM, YELLOW GREEN 570-575NM, GREEN 562-570NM

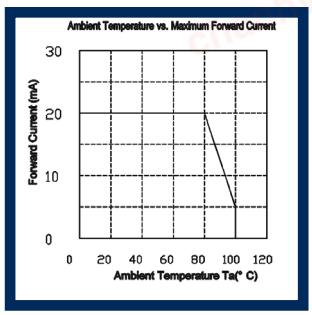
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



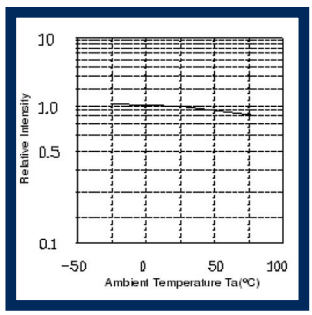
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

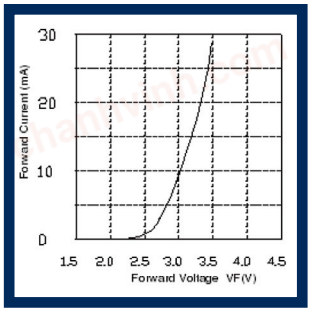


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

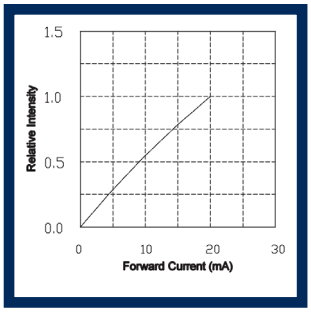


GREEN 520-525NM, BLUE 470-475NM

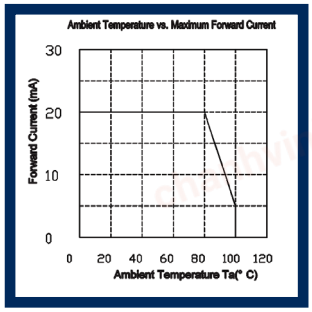
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



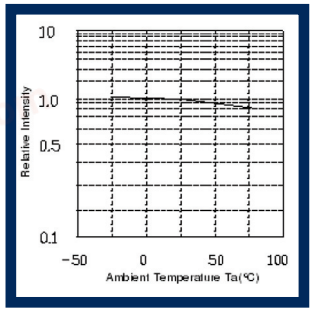
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING



RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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