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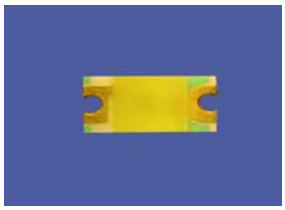
Dialight

Home> 5988081107F

Part Number: **5988081107F**

General Description

Lamp Type	Single Color
Lens Color	Non-Diffused
Compliancy	EIA-481-1
Series	598
Configuration	0603(1.6MM X 0.8MM X 0.7MM)
Description	SMD LED 0603 PACKAGE, SINGLE COLOR
Package Options	Tape and Reel



RoHS COMPLIANT

This is a
RoHS Compliant Product
To learn more click here

Absolute Maximum Ratings (Ta = 25°)

Forward Current mA	20mA
Reverse Current	10 µA@ Vr = 5V
Forward Current Pulsed	100mA
Derating	from 25°C = .25mA/°C
Solder Temperature	260° for 10 sec
Operating Temperature	-30~+85
Storage Temperature	-40~+100
ESD	1000

Operating Characteristics

Color	Green
LED Type	InGaN
Luminous Intensity Min	220
Luminous Intensity Typical	300
Luminous Intensity Max	400
Forward Voltage Min	3
Dominant Wavelength Min	520nm
Dominant Wavelength Typical	522.5nm
Dominant Wavelength Max	525nm
Power Dissipation Max	70mW

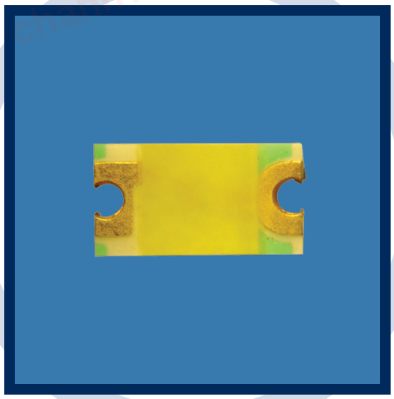
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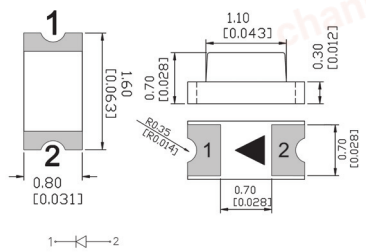
Micro LED® SMD LED
"598 SERIES" 0603 PACKAGE
(1.6mm X 0.8mm X 0.7mm) Single Color

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

598-8010-107F

Packaging Option

2	20 pieces on tape
7	7" reel 4000pcs / 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
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
598-8010-107F	RED	AlInGaP	Water Clear	30	40	80	630	635	642	1.7	2.2	2.4	140
598-8020-107F	RED-ORANGE	AlInGaP	Water Clear	120	150	200	620	625	630	1.7	2	2.4	140
598-8030-107F	ORANGE	AlInGaP	Water Clear	70	-	150	600	-	610	1.7	2	2.4	140
598-8040-107F	YELLOW	AlInGaP	Water Clear	100	130	160	590	-	595	1.7	2	2.2	140
598-8050-107F	YELLOW	AlInGaP	Water Clear	100	130	160	583	-	590	1.7	2	2.4	140
598-8060-107F	YELLOW-GREEN	AlInGaP	Water Clear	20	40	60	570	-	575	1.8	2	2.4	140
598-8070-107F	GREEN	GaP	Water Clear	10	20	40	562	-	570	1.8	2	2.4	140
598-8080-107F	GREEN	InGaN	Water Clear	150	220	300	520	523	525	3	3.2	3.5	140
598-8081-107F	GREEN	InGaN	Water Clear	220	300	400	520	523	525	3	3.2	3.5	140
598-8090-107F	BLUE	InGaN	Water Clear	60	90	140	470	473	475	2.8	3.2	3.5	140
598-8091-107F	BLUE	InGaN	Water Clear	90	140	160	470	473	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)
598-8010-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8020-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8030-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8040-107F	55	25	5	-30~+85	-40~+100	100	1000
598-8050-107F	55	25	5	-30~+85	-40~+100	100	1000
598-8060-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8070-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8080-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-8081-107F	70	20	5	-30~+85	-40~+100	100	1000
598-8090-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-8091-107F	70	20	5	-30~+85	-40~+100	100	1000

ENERGY STAR PARTNER

A4703 UL REGISTERED FIRM ISO 9001

Dialight Corporation

RoHS COMPLIANT

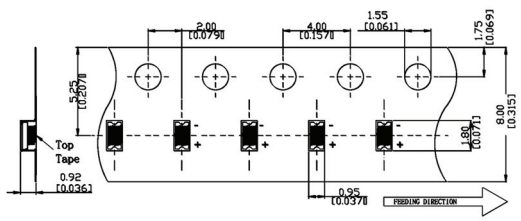
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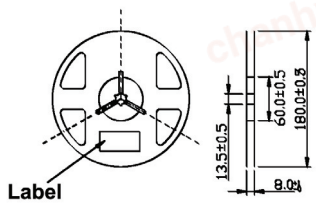
Micro LED® SMD LED
"598 SERIES" 0603 PACKAGE
(1.6mm X 0.8mm X 0.7mm) Single Color

MECHANICAL DIMENSIONS

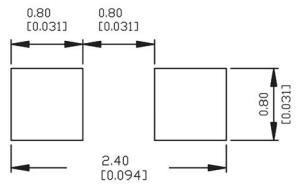
DIMENSIONS OF TAPE (UNIT:mm)

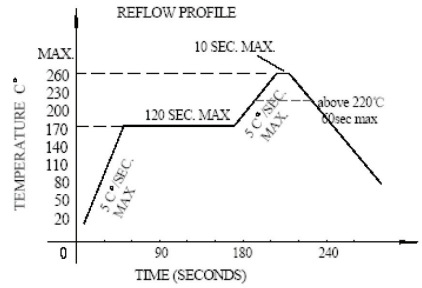


DIMENSIONS OF REEL (UNIT:mm)



Recommended Soldering Pattern For Reflow Soldering



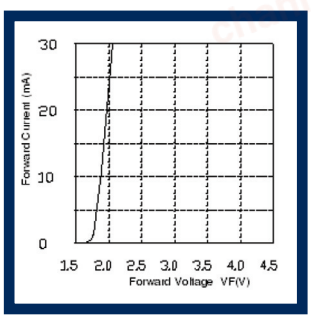


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

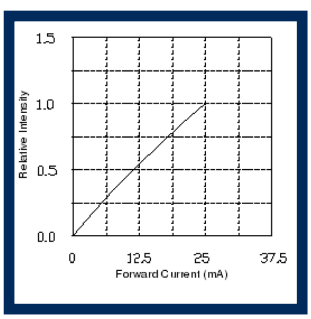
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

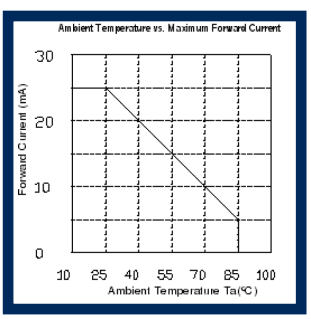
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



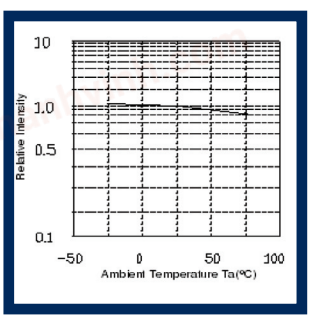
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

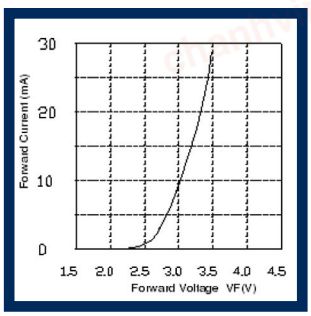


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

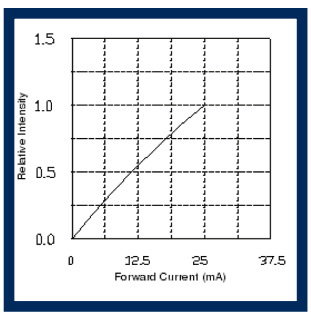


GREEN 520-525NM, BLUE 470-475NM

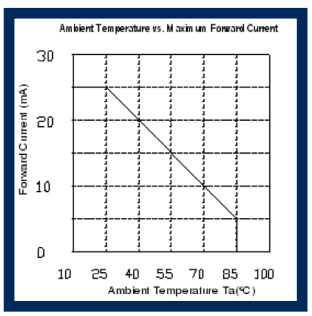
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



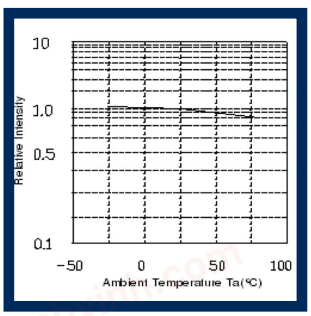
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING



RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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