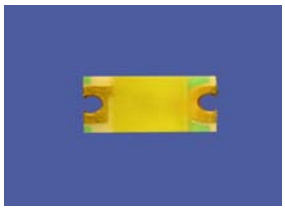
Dialight

Home> 5988060107F

Part Number: **5988060107F**

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



This is a
RoHS Compliant Product
To learn more click here

Absolute Maximum Ratings (Ta = 25°)

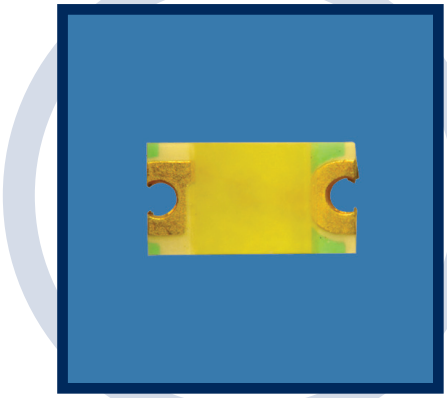
Forward Current mA	25mA
Reverse Current	10 µA@ Vr = 5V
Forward Current Pulsed	100mA
Derating	from 25°C = .33mA/°C
Solder Temperature	260° for 10 sec
Operating Temperature	-30~+85
Storage Temperature	-40~+100
ESD	2000

Operating Characteristics

Color	YellowGreen
LED Type	AlInGaP
Luminous Intensity Min	20
Luminous Intensity Typical	40
Luminous Intensity Max	60
Forward Voltage Min	1.8
Dominant Wavelength Min	570nm
Dominant Wavelength Max	575nm
Power Dissipation Max	60mW

Dialight

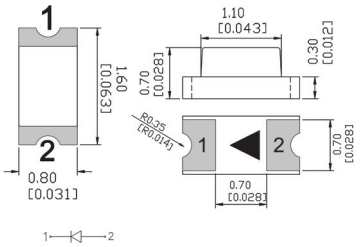
Micro LED® SMD LED
"598 SERIES" 0603 PACKAGE
(1.6mm X 0.8mm X 0.7mm) Single Color



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

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

Packaging Option

2	20 pieces on tape
7	7" reel 4000pcs / reel

PART NUMBERS

DIALIGHT P/N	EMITTED COLOR	MATERIAL	LENS COLOR	LUMINOUS INTENSITY			DOMINANT WAVELENGTH			FORWARD VOLTAGE			VIEWING ANGLE
				If = 20 ma			If = 20 ma			If = 20 ma			° 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)

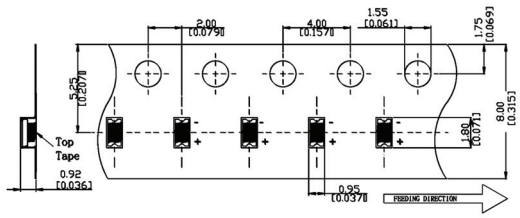
DIALIGHT P/N	Power Dissipation	Forward Current	Reverse Voltage	Operating Temperature Range	Storage Temperature Range	Peak Pulse Forward Current	Electrostatic Discharge
	(mW)	(mA)	(V)	(°C)	(°C)	(mA)	(HBM)
598-8010-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8020-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8030-107F	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 Dialight Corporation ISO 9001 RoHS COMPLIANT

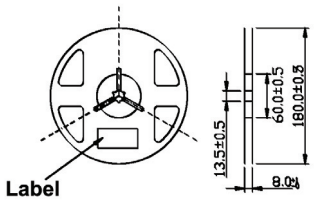
Micro LED® SMD LED
"598 SERIES" 0603 PACKAGE
(1.6mm X 0.8mm X 0.7mm) Single Color

MECHANICAL DIMENSIONS

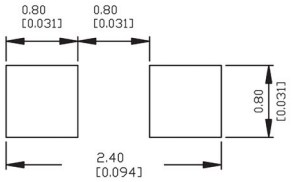
DIMENSIONS OF TAPE (UNIT:mm)

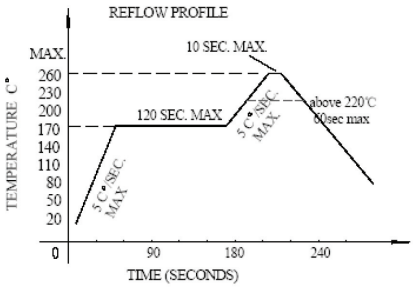


DIMENSIONS OF REEL (UNIT:mm)



Recommended Soldering Pattern For Reflow Soldering



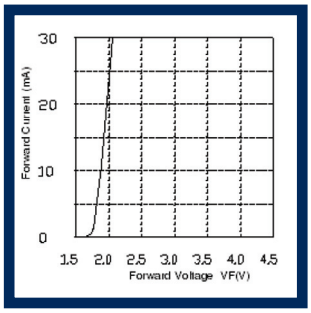


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

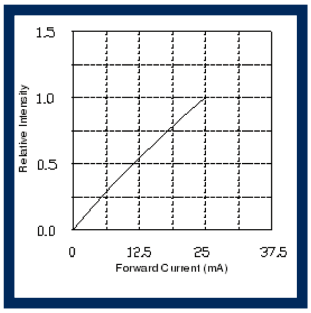
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

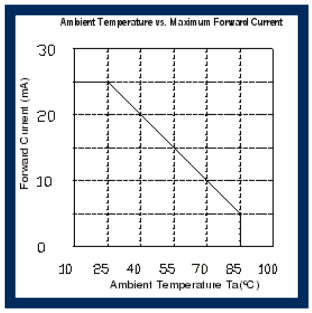
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



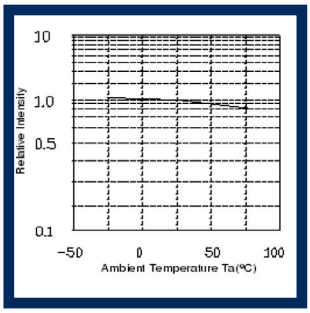
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

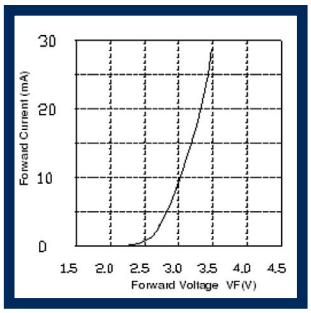


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

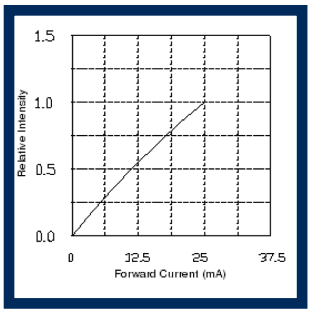


GREEN 520-525NM, BLUE 470-475NM

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



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



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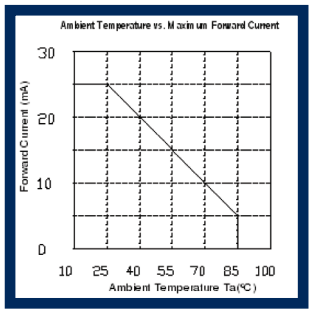
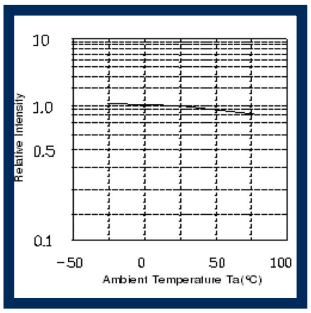


RELATIVE INTENSITY VS AMBIENT TEMPERATURE



ENERGY STAR PARTNER

A4703 UL REGISTERED FIRM ISO 9001

Dialight Corporation

RoHS COMPLIANT