

Home > 5989250107F

Part Number: **5989250107F**

General Description

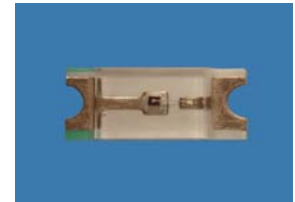
Lamp Type	Single Color
Lens Color	Non-Diffused
Compliance	EIA-481-1
Series	598
Configuration	1206(3.2MM X 1.4MM X 0.7MM)
Description	SMD LED 1206 PACKAGE, SINGLE COLOR
Package Options	Tape and Reel

Absolute Maximum Ratings (Ta = 25°)

Forward Current mA	25mA
Reverse Current	10 μ A@ 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	1000

Operating Characteristics

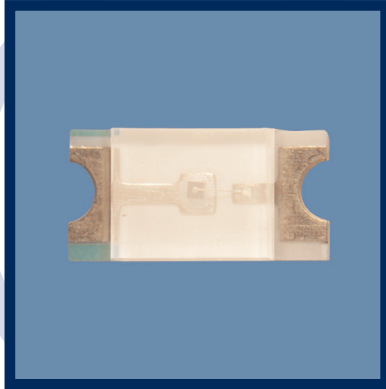
Color	 Yellow
LED Type	AlInGaP
Luminous Intensity Min	100
Luminous Intensity Typical	130
Luminous Intensity Max	160
Forward Voltage Min	1.7
Dominant Wavelength Min	583nm
Dominant Wavelength Max	590nm
Power Dissipation Max	55mW



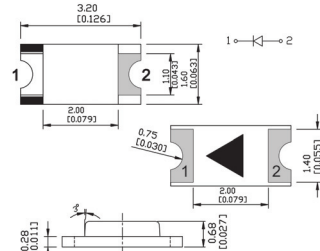
This is a
RoHS Compliant Product
[To learn more click here](#)

Dialight

Micro LED® SMD LED
“598 SERIES” 1206 PACKAGE
 (3.2mm X 1.6mm X 0.7mm) Single Color Diffused



Package Outline Drawing:



Notes 1. All dimensions are in mm [inches];
 2. Tolerances are $\pm 0.1\text{mm}$ [0.004inch] unless noted.

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.

ORDERING INFORMATION

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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
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
598-9210-107F	RED	AlInGaP	Diffused	30	-	80	630	635	640	1.7	2	2.4	140
598-9220-107F	RED-ORANGE	AlInGaP	Diffused	120	150	200	620	625	630	1.7	2	2.4	140
598-9230-107F	ORANGE	AlInGaP	Diffused	70	-	150	600	-	610	1.7	2	2.4	140
598-9250-107F	YELLOW	AlInGaP	Diffused	100	130	160	583	-	590	1.7	2	2.4	140
598-9260-107F	YELLOW-GREEN	AlInGaP	Diffused	20	40	60	570	-	575	1.8	2	2.4	140
598-9270-107F	GREEN	GaP	Diffused	10	20	40	562	-	570	1.8	2	2.4	140
598-9280-107F	GREEN	InGaP	Diffused	150	220	300	520	523	525	3	3.2	3.5	140
598-9281-107F	GREEN	InGaP	Diffused	220	300	400	520	523	525	3	3.2	3.5	140
598-9290-107F	BLUE	InGaP	Diffused	60	90	140	470	473	475	2.8	3.2	3.5	140
598-9291-107F	BLUE	InGaP	Diffused	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)
598-9210-107F	60	25	5	-30~+85	-40~+100	100	2000
598-9220-107F	60	25	5	-30~+85	-40~+100	100	2000
598-9230-107F	60	25	5	-30~+100	-40~+100	100	2000
598-9250-107F	55	25	5	-30~+85	-40~+100	100	1000
598-9260-107F	72	30	5	-20~+85	-30~+100	100	2000
598-9270-107F	60	25	5	-30~+85	-40~+100	100	1000
598-9280-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-9281-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-9290-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-9291-107F	87.5	25	5	-30~+85	-40~+100	100	2000



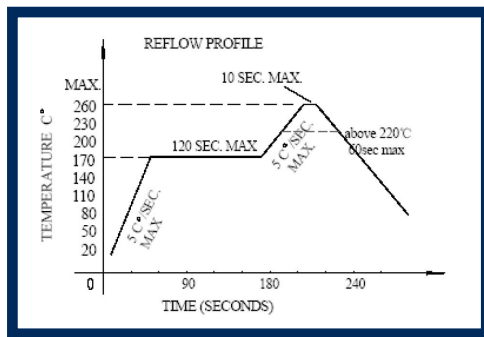
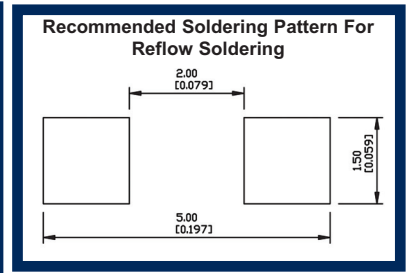
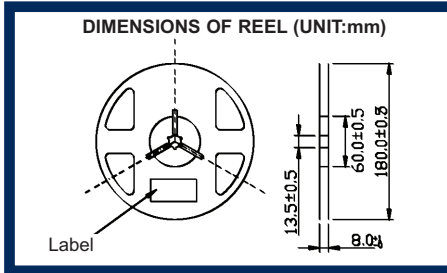
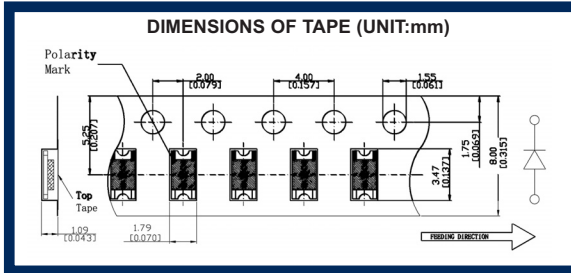
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ISO 9001



MECHANICAL DIMENSIONS

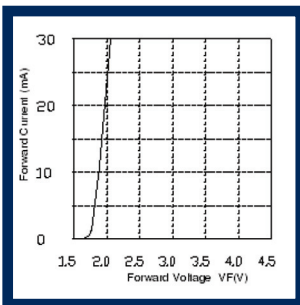


REFLOW SOLDERING	HAND SOLDERING
Pre-heat	160~180°C
Pre-heat time	120 seconds Max.
Peak temperature	260°C Max.
Soldering time	10 seconds Max.
Condition	Refer to temperature profile
Temperature	300°C Max.
Soldering time	3 second Max (one time only)

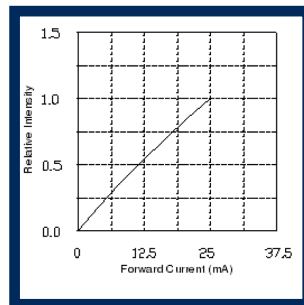
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

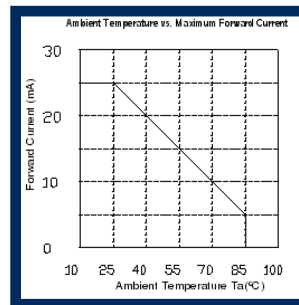
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



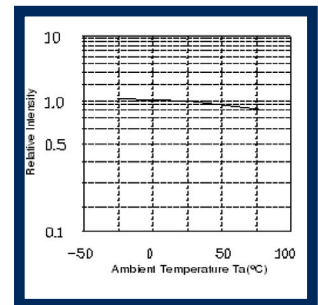
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

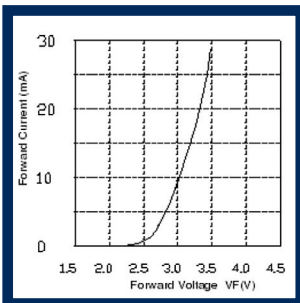


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

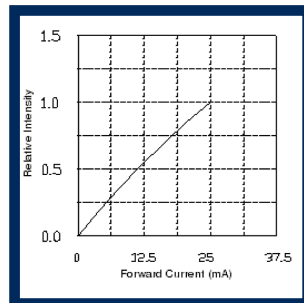


GREEN 520-525NM, BLUE 470-475NM

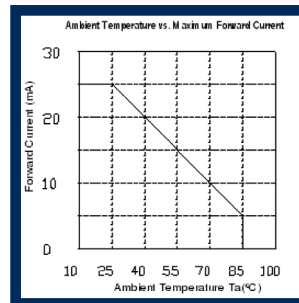
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



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



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RELATIVE INTENSITY VS AMBIENT TEMPERATURE

