

Dialight

Micro LED® SMD LED

“598 SERIES” 0805 PACKAGE

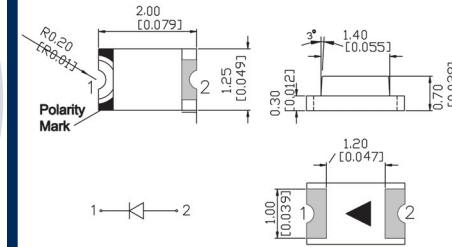
(2.0mm X 1.25mm X 0.7mm) Single Color



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 $\pm 0.1\text{mm}$ [0.004inch] unless noted.

ORDERING INFORMATION

5 9 8 - 8 1 1 0 - 1 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			DOMINANT WAVELENGTH			FORWARD VOLTAGE			VIEWING ANGLE ° DEGREES
				If = 20 ma			If = 20 ma			If = 20 ma			
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
598-8110-107F	RED	AllnGaP	Water Clear	30	40	80	630	635	642	1.7	2.2	2.4	140
598-8120-107F	RED-ORANGE	AllnGaP	Water Clear	120	150	200	620	625	630	1.7	2	2.4	140
598-8130-107F	ORANGE	AllnGaP	Water Clear	70	-	150	600	-	610	1.7	2	2.4	140
598-8140-107F	YELLOW	AllnGaP	Water Clear	100	130	160	590	-	595	1.7	2	2.4	140
598-8150-107F	YELLOW	AllnGaP	Water Clear	100	130	160	583	-	590	1.7	2	2.4	140
598-8160-107F	YELLOW-GREEN	AllnGaP	Water Clear	20	40	60	570	-	575	1.8	2	2.4	140
598-8170-107F	GREEN	GaP	Water Clear	10	20	40	562	-	570	1.8	2	2.4	140
598-8180-107F	GREEN	InGaN	Water Clear	150	220	300	520	523	525	3	3.2	3.5	140
598-8181-107F	GREEN	InGaN	Water Clear	220	300	400	520	523	525	3	3.2	3.5	140
598-8190-107F	BLUE	InGaN	Water Clear	60	90	140	470	473	475	2.8	3.2	3.5	140
598-8191-107F	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)
598-8110-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8120-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8130-107F	55	25	5	-30~+85	-40~+100	100	2000
598-8140-107F	55	25	5	-30~+85	-40~+100	100	2000
598-8150-107F	55	25	5	-30~+85	-40~+100	100	2000
598-8160-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8170-107F	60	25	5	-30~+85	-40~+100	100	2000
598-8180-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-8181-107F	87.5	25	5	-30~+85	-40~+100	100	2000
598-8190-107F	87.5	25	5	-30~+85	-40~+100	100	1000
598-8191-107F	87.5	25	5	-30~+85	-40~+100	100	1000

Dialight Corporation

1501 Route 34 South • Farmingdale, NJ 07727 USA

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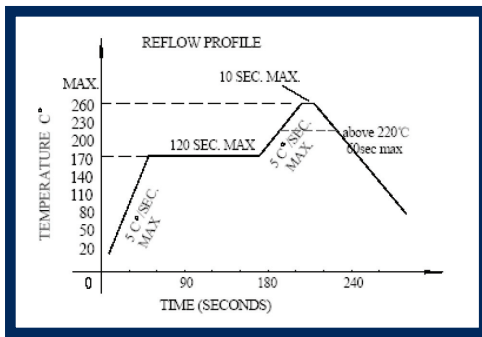
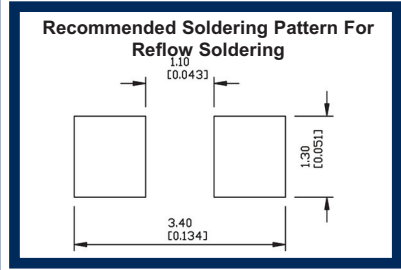
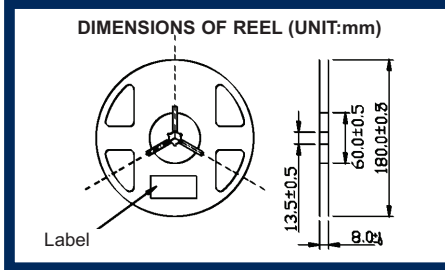
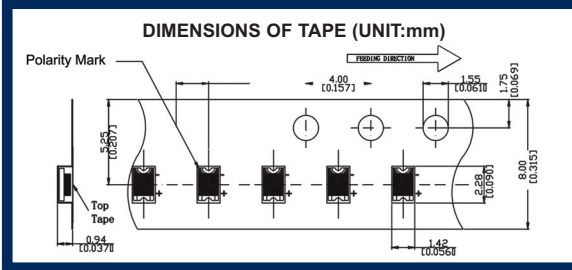


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MECHANICAL DIMENSIONS

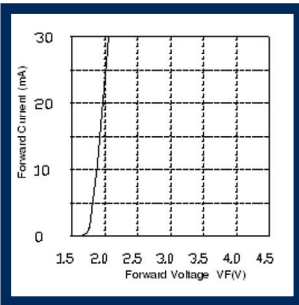


	REFLOW SOLDERING	HAND SOLDERING
Pre-heat	160~180°C	Temperature 300°C Max.
Pre-heat time	120 seconds Max.	
Peak temperature	260°C Max.	Soldering time 3 second Max (one time only)
Soldering time	10 seconds Max.	
Condition	Refer to temperature -profile	

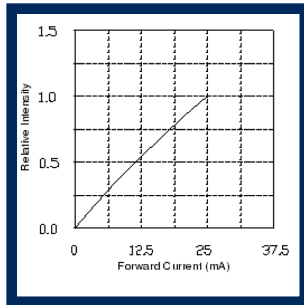
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

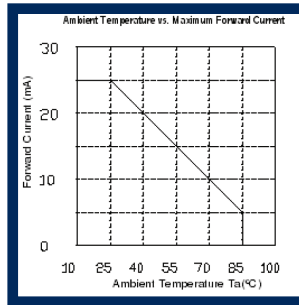
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



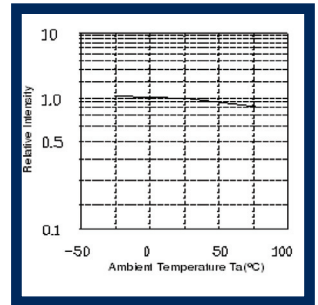
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

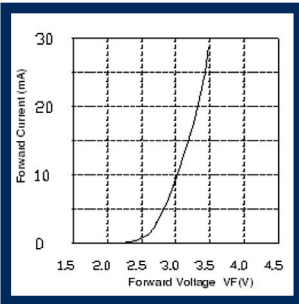


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

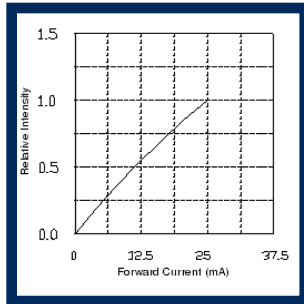


GREEN 520-525NM, BLUE 470-475NM

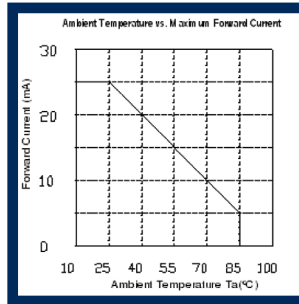
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



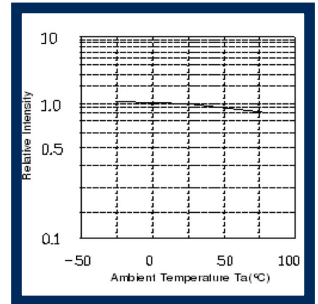
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



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RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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