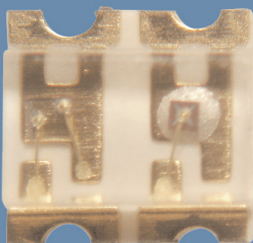


Dialight

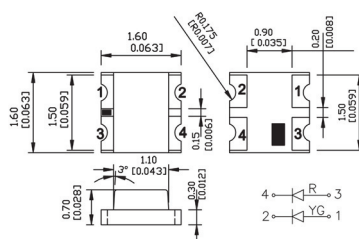
Micro LED® SMD LED
“598 SERIES” 0606 PACKAGE
 (1.6mm X 1.6mm X 0.7mm) Bi-Color

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 4 1 0 - 2 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	PINOUT
				If = 20 ma			If = 20 ma			If = 20 ma				
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX		
598-8410-207F	RED	AlInGaP	Water Clear	40	60	80	630	635	645	1.8	2	2.4	140	4 →  R → 3
	GREEN	AlInGaP	Water Clear	30	40	50	560	565	570	1.8	2	2.4	140	2 →  G → 1
598-8421-207F	RED-ORANGE	AlInGaP	Water Clear	80	100	120	620	625	630	1.8	2	2.4	140	4 →  RO → 3
	GREEN	InGaP	Water Clear	200	220	240	520	525	530	2.7	3.2	3.5	140	2 →  G → 1
598-8430-207F	ORANGE	AlInGaP	Water Clear	80	100	150	600	605	610	1.8	2	2.4	140	4 →  O → 3
	GREEN	AlInGaP	Water Clear	30	40	50	562	568	570	1.8	2	2.4	140	2 →  G → 1
598-8440-207F	YELLOW	AlInGaP	Water Clear	120	135	150	587	590	592	1.8	2	2.4	140	4 →  Y → 3
	GREEN	AlInGaP	Water Clear	35	50	65	565	570	575	1.8	2	2.4	140	2 →  G → 1
598-8450-207F	YELLOW	AlInGaP	Water Clear	80	120	150	587	590	592	1.8	2	2.4	140	4 →  Y → 3
	GREEN	InGaP	Water Clear	90	120	140	525	528	530	2.7	3.2	3.5	140	2 →  G → 1
598-8460-207F	YELLOW	AlInGaP	Water Clear	120	135	150	587	590	592	1.8	2	2.4	140	4 →  R → 3
	RED	AlInGaP	Water Clear	40	50	60	630	640	645	1.8	2.2	2.4	140	2 →  Y → 1
598-8470-207F	RED	AlInGaP	Water Clear	20	40	60	627	635	639	1.8	2	2.4	140	SEE EXAMPLE
	YELLOW-GREEN	AlInGaP	Water Clear	20	30	40	565	570	575	1.8	2	2.4	140	
598-8480-207F	GREEN	InGaP	Water Clear	200	220	240	520	525	530	2.7	3.2	3.5	140	4 →  B → 3
	BLUE	InGaP	Water Clear	60	75	90	470	473	475	2.8	3.2	3.4	140	2 →  G → 1

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)
598-8410-207F	48	20	5	-40~+100	-40~+100	100	2000
	48	20	5	-40~+100	-40~+100	100	2000
598-8421-207F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8430-207F	48	20	5	-40~+100	-40~+100	100	2000
	48	20	5	-40~+100	-40~+100	100	2000
598-8440-207F	72	20	5	-20~+85	-30~+100	100	1000
	72	20	5	-20~+85	-30~+100	100	1000
598-8450-207F	48	20	5	-40~+100	-40~+100	100	2000
	70	20	5	-40~+100	-40~+100	100	2000
598-8460-207F	72	20	5	-20~+85	-30~+100	100	1000
	72	20	5	-20~+85	-30~+100	100	1000
598-8470-207F	48	20	5	-40~+100	-40~+100	100	2000
	48	20	5	-40~+100	-40~+100	100	2000
598-8480-207F	102	20	5	-30~+85	-30~+100	100	1000
	105	20	5	-30~+85	-30~+100	100	1000



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Dialight Corporation

1501 Route 34 South • Farmingdale, NJ 07727 USA

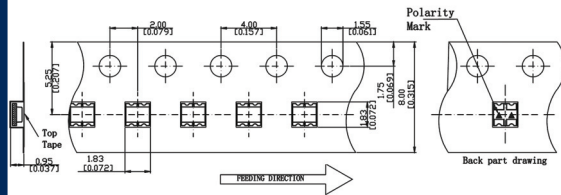
Tel: (1) 732-919-3119 • Fax: (1) 732-751-5778 • www.dialight.com



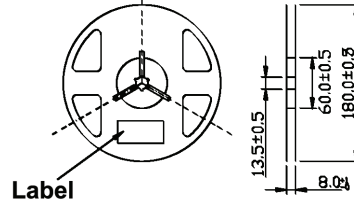
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MECHANICAL DIMENSIONS

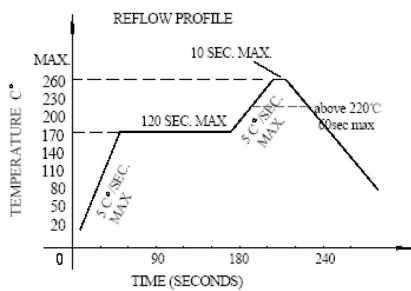
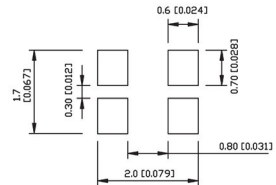
DIMENSIONS OF TAPE (UNIT:mm)



DIMENSIONS OF REEL (UNIT:mm)



Recommended Soldering Pattern For Reflow Soldering

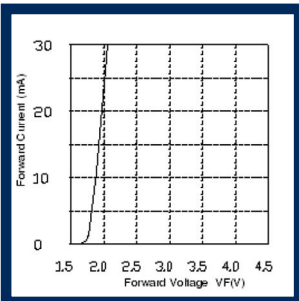


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

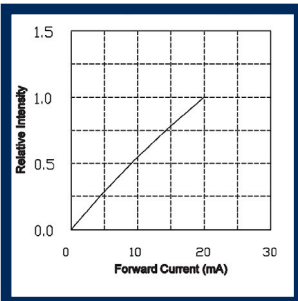
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

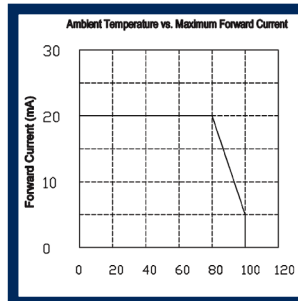
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



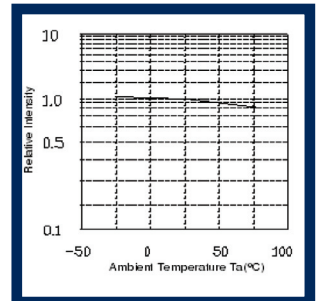
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

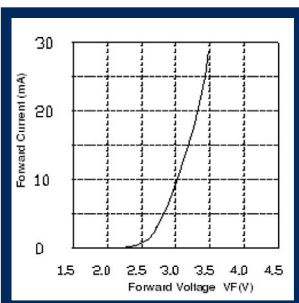


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

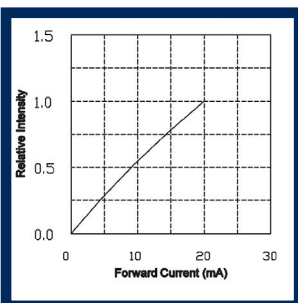


GREEN 520-525NM, BLUE 470-475NM

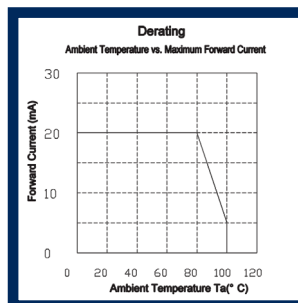
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



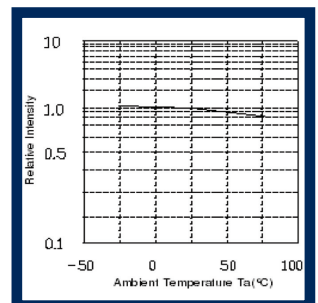
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



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RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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