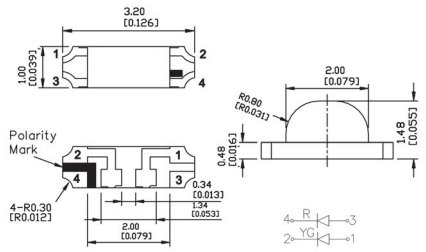
Dialight

Micro LED® SMD LED
"598 SERIES" 1208 PACKAGE
(3.2mm X 1.5mm X 1.0mm) Bi-Color Right Angle

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

598-8510-20[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 If = 20 ma			DOMINANT WAVELENGTH If = 20 ma			FORWARD VOLTAGE If = 20 ma			VIEWING ANGLE ° DEGREES	PINOUT
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX		
598-8510-207F	RED	AlInGaP	Water Clear	40	60	80	630	635	645	1.8	2	2.4	160	
	GREEN	AlInGaP	Water Clear	30	40	50	560	565	570	1.8	2	2.4	160	
598-8520-207F	RED-ORANGE	AlInGaP	Water Clear	80	110	150	620	625	630	1.8	2	2.4	160	
	GREEN	AlInGaP	Water Clear	30	40	50	560	568	570	1.8	2	2.4	160	
598-8530-207F	ORANGE	AlInGaP	Water Clear	80	100	150	600	605	610	1.8	2	2.4	160	
	GREEN	AlInGaP	Water Clear	30	45	60	560	568	570	1.8	2	2.4	160	
598-8540-207F	YELLOW	AlInGaP	Water Clear	90	110	150	587	590	592	1.8	2	2.4	160	
	GREEN	AlInGaP	Water Clear	30	40	60	560	565	570	1.8	2	2.4	160	
598-8550-207F	YELLOW	AlInGaP	Water Clear	80	-	100	587	590	592	1.8	2	2.2	160	
	GREEN	InGaN	Water Clear	90	-	120	520	525	530	2.7	3.2	3.5	160	
598-8560-207F	YELLOW	AlInGaP	Water Clear	120	135	150	587	590	592	1.8	2.2	2.4	160	
	RED	AlInGaP	Water Clear	40	50	60	630	635	645	1.8	2.2	2.4	160	
598-8570-207F	RED	AlInGaP	Water Clear	40	60	80	630	635	640	1.8	2.2	2.4	160	SEE EXAMPLE
	YELLOW-GREEN	AlInGaP	Water Clear	30	40	50	565	570	575	2.8	3.2	3.4	160	
598-8580-207F	BLUE	InGaN	Water Clear	60	70	80	470	473	475	3	3.2	3.4	160	
	GREEN	InGaN	Water Clear	200	220	240	520	523	525	2.7	3.2	3.5	160	

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)
598-8510-207F	48	20	5	-40~+100	-40~+100	100	1000
	48	20	5	-40~+100	-40~+100	100	1000
598-8520-207F	48	20	5	-40~+100	-40~+100	100	1000
	48	20	5	-40~+100	-40~+100	100	1000
598-8530-207F	72	30	5	-40~+85	-40~+100	100	1000
	72	30	5	-40~+85	-40~+100	100	1000
598-8540-207F	48	20	5	-40~+100	-40~+100	100	1000
	48	20	5	-40~+100	-40~+100	100	1000
598-8550-207F	72	30	5	-30~+85	-30~+100	100	1000
	105	30	5	-30~+85	-30~+100	100	1000
598-8560-207F	72	30	5	-30~+85	-30~+100	100	1000
	72	30	5	-30~+85	-30~+100	100	1000
598-8570-207F	72	30	5	-40~+85	-40~+100	100	1000
	102	30	5	-40~+85	-40~+100	100	1000
598-8580-207F	102	30	5	-30~+85	-30~+100	100	1000
	105	30	5	-30~+85	-30~+100	100	1000

ENERGY STAR PARTNER A4703 UL REGISTERED FIRM ISO 9001 Dialight Corporation RoHS COMPLIANT

Dialight Corporation
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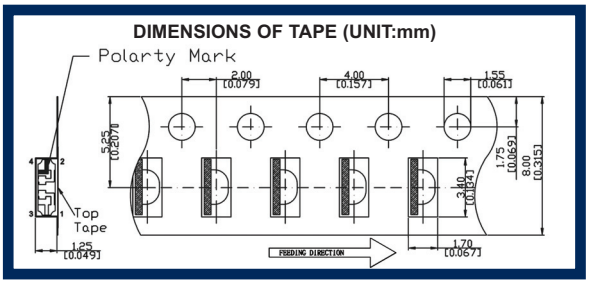
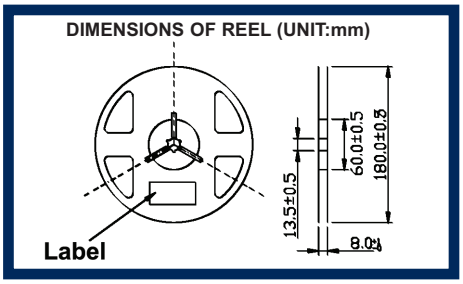
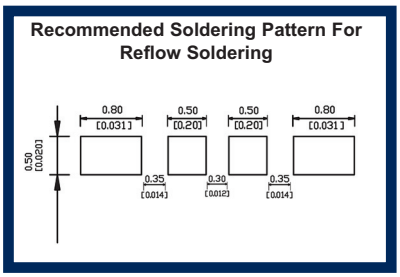
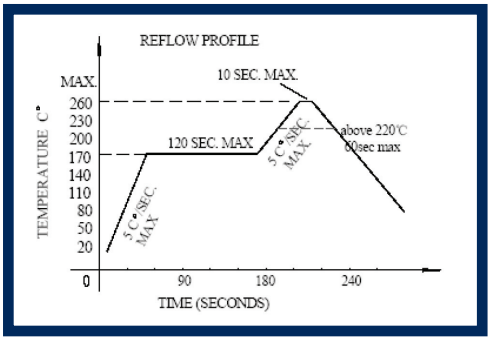
MECHANICAL DIMENSIONS







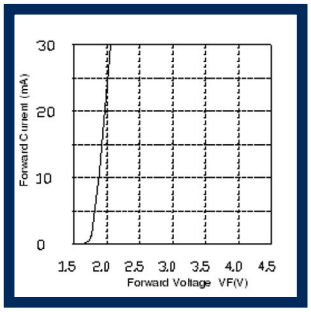


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

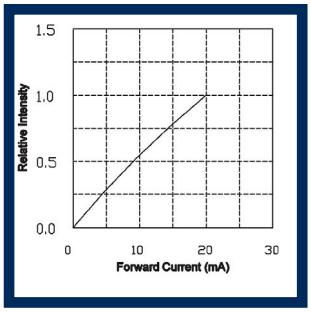
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

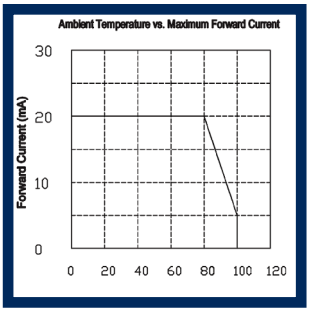
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



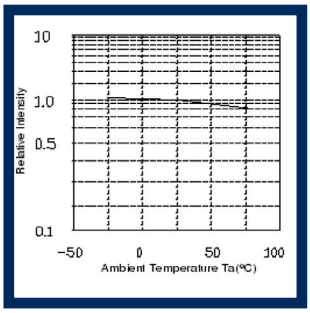
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

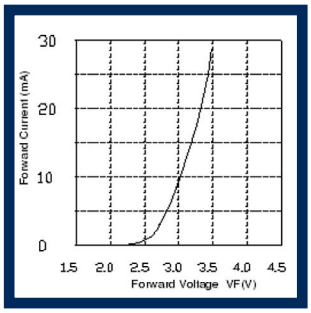


RELATIVE INTENSITY VS AMBIENT TEMPERATURE



GREEN 520-525NM, BLUE 470-475NM

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



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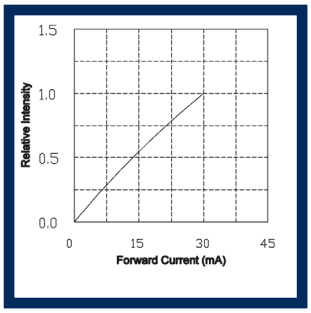

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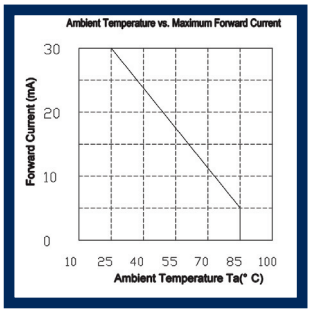

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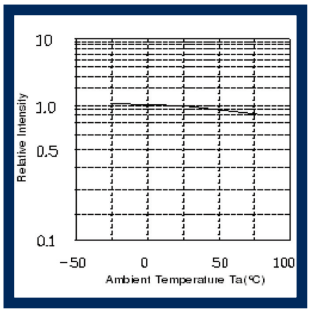

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