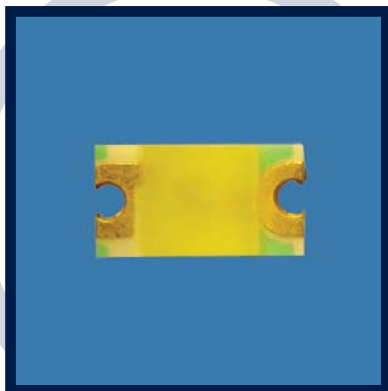


Dialight

Micro LED® SMD LED

"598 SERIES" 0603 PACKAGE

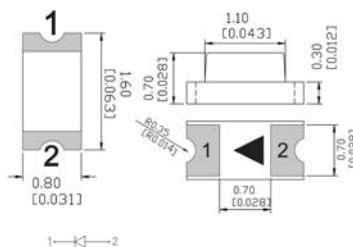
(1.6mm X 0.8mm X 0.7mm) Single Color



FEATURES / BENEFITS

- ▲ Compatible with automatic placement equipment
- ▲ RoHS compliant
- ▲ Packaged in 8mm tape, 7" reel and 20 per strip
- ▲ MSL 3
- ▲ 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 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
				mcd @ If = 20 ma			nm @ If = 20 ma			V @ If = 20 ma			° DEGREES
				MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
598-8010-107F	RED	AlInGaP	Water Clear	40	60	80	630	635	640	1.8	2	2.4	140
598-8020-107F	RED-ORANGE	AlInGaP	Water Clear	150	240	330	620	625	630	1.8	2	2.2	140
598-8030-107F	ORANGE	AlInGaP	Water Clear	90	120	150	600	605	610	1.8	2	2.2	140
598-8040-107F	YELLOW	AlInGaP	Water Clear	80	140	200	590	593	595	1.8	2	2.2	140
598-8050-107F	YELLOW	AlInGaP	Water Clear	80	140	200	585	588	590	1.8	2	2.2	140
598-8060-107F	YELLOW-GREEN	AlInGaP	Water Clear	28	40	60	567	571	575	1.8	2	2.4	140
598-8070-107F	GREEN	GaP	Water Clear	10	20	40	565	568	570	1.8	2	2.4	140
598-8081-107F	GREEN	InGaP	Water Clear	260	340	430	520	523	525	2.8	3.2	3.5	140
598-8091-107F	BLUE	InGaP	Water Clear	90	140	200	465	470	475	2.9	3.2	3.5	140

ABSOLUTE RATINGS (@ Ta = 25°C)

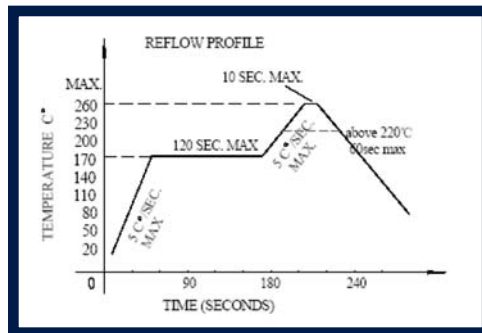
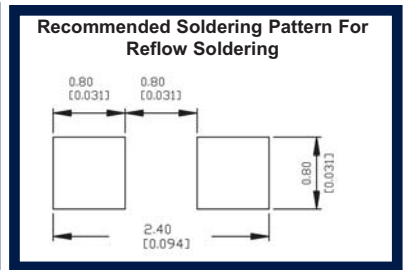
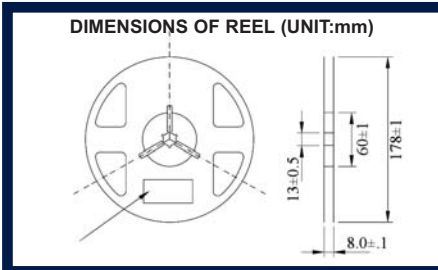
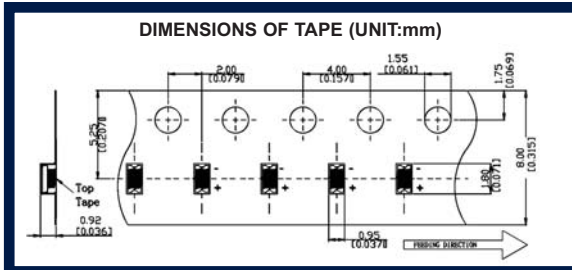
DIALIGHT P/N	Power Dissipation	Forward Current	Reverse Voltage	Operating Temperature Range	Storage Temperature Range	Peak Pulse Forward Current	Electrostatic Discharge
	(mW)	(mA)	(V)	(°C)	(°C)	(mA)	(V)
598-8010-107F	60	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8020-107F	55	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8030-107F	55	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8040-107F	55	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8050-107F	55	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8060-107F	60	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8070-107F	60	25	5	-40~+100	-40~+100	100	2000(HBM)
598-8081-107F	70	20	5	-40~+100	-40~+100	100	1000(HBM)
598-8091-107F	70	20	5	-40~+100	-40~+100	100	1000(HBM)



ISO 9001



MECHANICAL DIMENSIONS

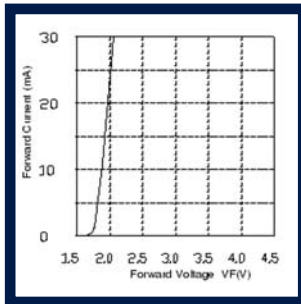


REFLOW SOLDERING		HAND SOLDERING	
Pre-heat	160~180°C	Temperature	300°C Max.
Pre-heat time	120 seconds Max.		
Peak temperature	260°C Max.	Soldering time	3 second Max (one time only)
Soldering time	10 seconds Max.		
Condition	Refer to temperature -profile		

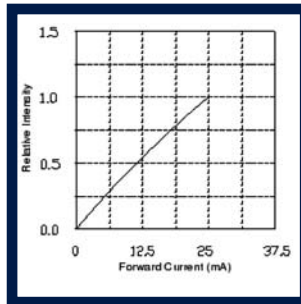
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

RED 630-640NM, RED-ORANGE 620-630NM, ORANGE 600-610NM, YELLOW 590-595NM, YELLOW 585-590NM, YELLOW GREEN 567-575NM, GREEN 565-570NM

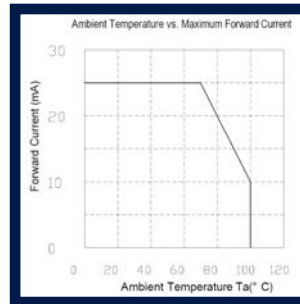
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



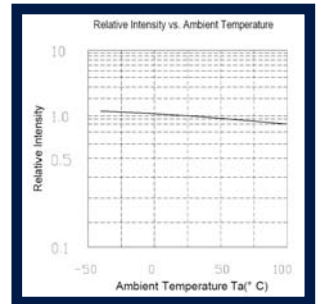
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

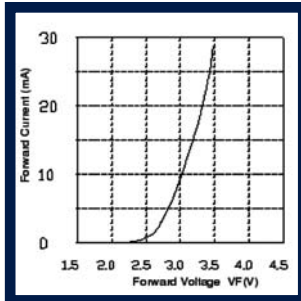


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

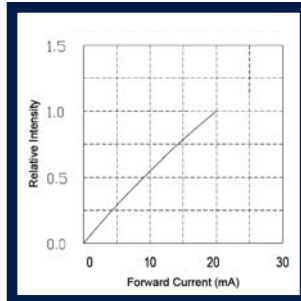


GREEN 520-525NM, BLUE 465-475NM

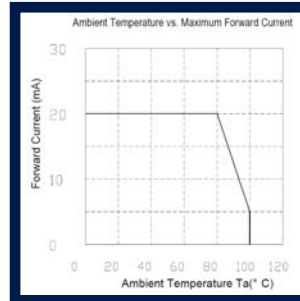
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



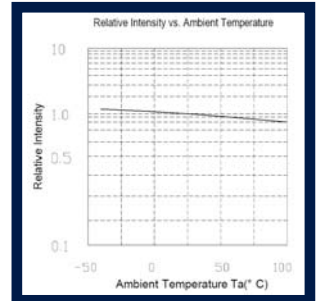
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING



RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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