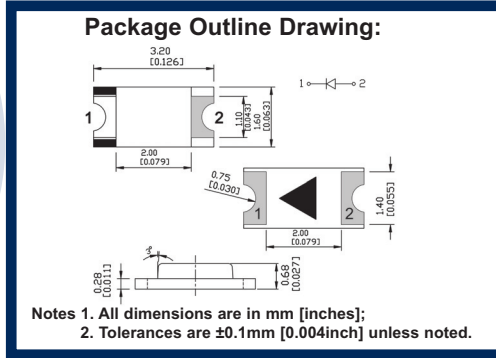
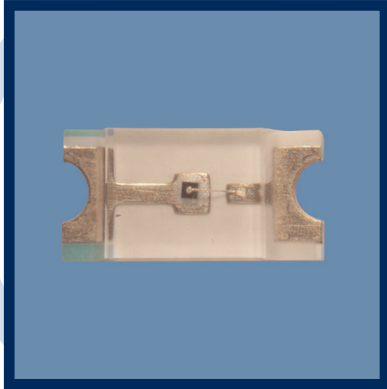


Dialight

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



- ### 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

5 9 8 - 8 2 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 | |
| 598-8210-107F | RED | AlInGaP | Water Clear | 30 | - | 80 | 630 | 635 | 640 | 1.7 | 2 | 2.4 | 140 |
| 598-8220-107F | RED-ORANGE | AlInGaP | Water Clear | 120 | 150 | 200 | 620 | 625 | 630 | 1.7 | 2 | 2.4 | 140 |
| 598-8230-107F | ORANGE | AlInGaP | Water Clear | 70 | 110 | 150 | 600 | - | 610 | 1.7 | 2 | 2.4 | 140 |
| 598-8240-107F | YELLOW | AlInGaP | Water Clear | 100 | 130 | 160 | 590 | - | 595 | 1.7 | 2 | 2.4 | 140 |
| 598-8250-107F | YELLOW | AlInGaP | Water Clear | 100 | 130 | 160 | 583 | - | 590 | 1.7 | 2 | 2.4 | 140 |
| 598-8260-107F | YELLOW-GREEN | AlInGaP | Water Clear | 20 | 40 | 60 | 570 | - | 575 | 1.8 | 2 | 2.4 | 140 |
| 598-8270-107F | GREEN | GaP | Water Clear | 10 | 20 | 40 | 562 | - | 570 | 1.8 | 2 | 2.4 | 140 |
| 598-8280-107F | GREEN | InGaP | Water Clear | 150 | 220 | 300 | 520 | 523 | 525 | 3 | 3.2 | 3.5 | 140 |
| 598-8281-107F | GREEN | InGaP | Water Clear | 220 | 300 | 400 | 520 | 523 | 525 | 3 | 3.2 | 3.5 | 140 |
| 598-8290-107F | BLUE | InGaP | Water Clear | 60 | 90 | 140 | 470 | 473 | 475 | 2.8 | 3.2 | 3.5 | 140 |
| 598-8291-107F | BLUE | InGaP | 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) |
| 598-8210-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8220-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8230-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8240-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8250-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8260-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8270-107F | 60 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |
| 598-8280-107F | 87.5 | 25 | 5 | -30~+85 | -40~+100 | 100 | 1000 |
| 598-8281-107F | 87.5 | 25 | 5 | -30~+85 | -40~+100 | 100 | 1000 |
| 598-8290-107F | 87.5 | 25 | 5 | -30~+85 | -40~+100 | 100 | 1000 |
| 598-8291-107F | 87.5 | 25 | 5 | -30~+85 | -40~+100 | 100 | 2000 |



Dialight Corporation

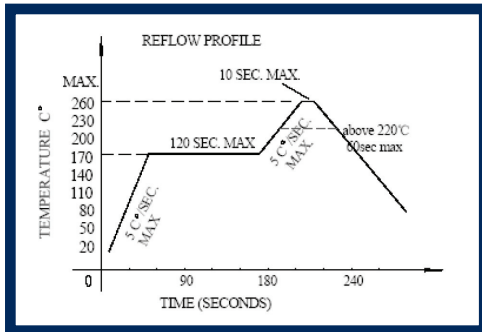
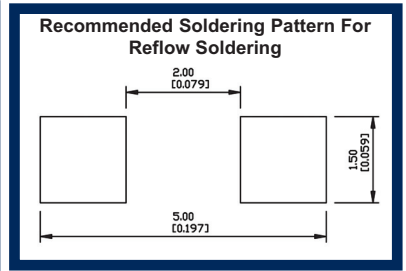
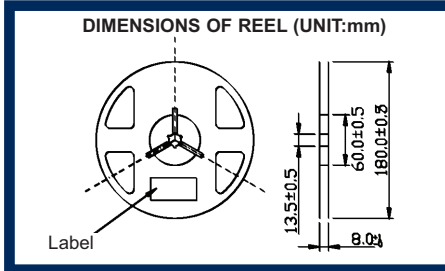
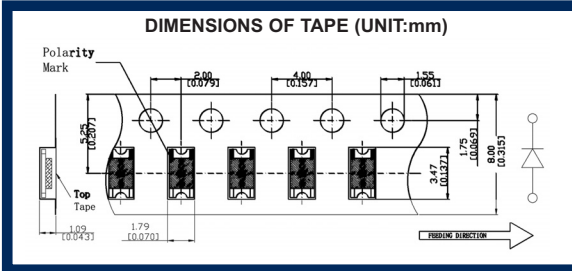
1501 Route 34 South • Farmingdale, NJ 07727 USA

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



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MECHANICAL DIMENSIONS

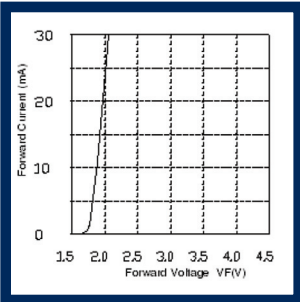


| | REFLOW SOLDERING | HAND SOLDERING |
|------------------|------------------------------|---|
| Pre-heat | 160~180°C | Temperature 300°C Max. |
| Pre-heat time | 120 seconds Max. | |
| Peak temperature | 260°C Max. | Soldering time 3 second Max (one time only) |
| Soldering time | 10 seconds Max. |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

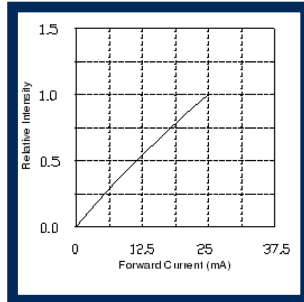
OPTICAL AND ELECTRICAL CHARACTERISTICS CURVES

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

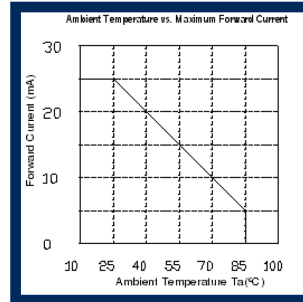
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



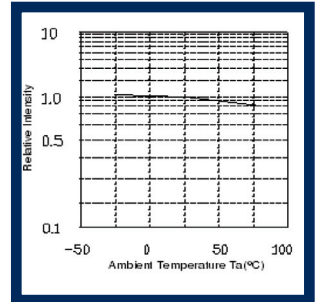
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING

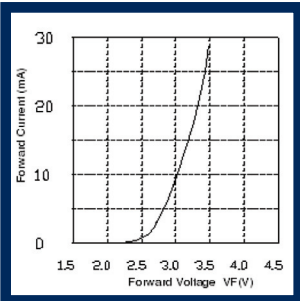


RELATIVE INTENSITY VS AMBIENT TEMPERATURE

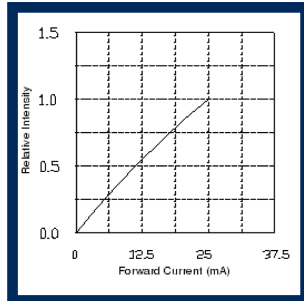


GREEN 520-525NM, BLUE 470-475NM

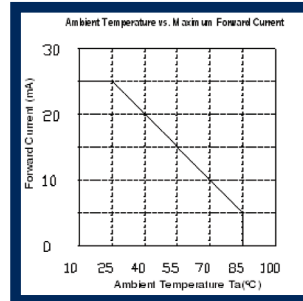
FORWARD VOLTAGE VS FORWARD CURRENT (Ta=25°C)



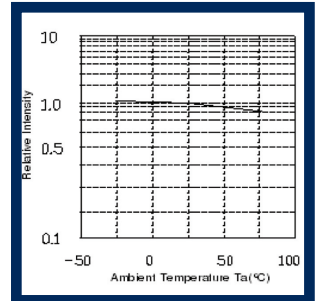
RELATIVE INTENSITY VS FORWARD CURRENT (Ta=25°C)



DERATING



RELATIVE INTENSITY VS AMBIENT TEMPERATURE



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