AP3216F3C

AP3216SF4C

## Features

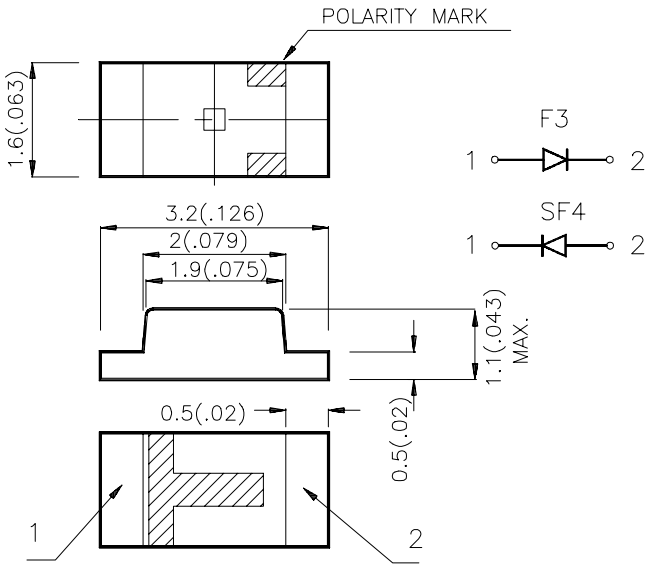
- WATER CLEAR LENS AVAILABLE.
- 3.2mmx1.6mm SMT LED, 1.1mm THICKNESS.
- HIGH POWER OUTPUT.
- PACKAGE: 2000PCS/REEL.

## Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

SF4 Made with Gallium Aluminum Arsenide Infrared Emitting diodes.

## Package Dimensions




Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.0079") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No. | Dice | Lens Type | Po= (mW/sr) @20mA | | Viewing Angle |
|---|---|---|---|---|---|
| | | | Min. | Typ. | 2θ1/2 |
| AP3216F3C | GaAs | WATER CLEAR | 0.5 | 1.2 | 120° |
| AP3216SF4C | GaAlAs | WATER CLEAR | 0.5 | 1 | 120° |

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

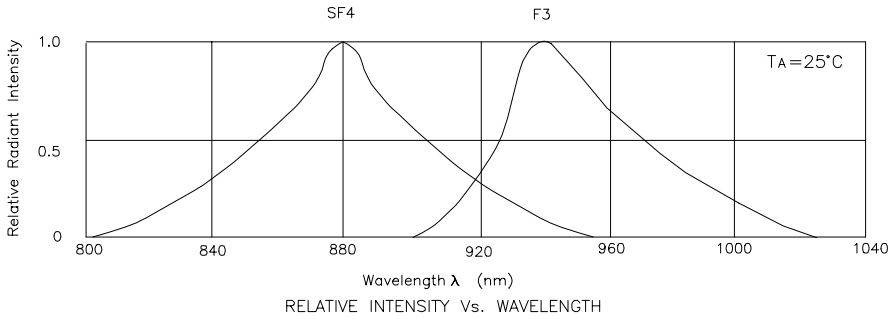
## Electrical / Optical Characteristics at $T_A$=25°C

| Item | P/N | Symbol | Typ. | Max. | Unit | Condition |
|---|---|---|---|---|---|---|
| Forward Voltage | F3<br>SF4 | $V_F$ | 1.2<br>1.3 | 1.5<br>1.7 | V | IF=20mA |
| Reverse Current | F3<br>SF4 | $I_R$ | - | 10<br>10 | uA | VR=5V |
| Junction Capacitance | F3<br>SF4 | C | 90<br>90 | - | pF | V=0 f=1MHz |
| Peak Spectral Wavelength | F3<br>SF4 | λP | 940<br>880 | - | nm | IF=20mA |
| Spectral Bandwidth | F3<br>SF4 | Δλ | 50<br>50 | - | nm | IF=20mA |

## Absolute Maximum Ratings at $T_A$=25°C

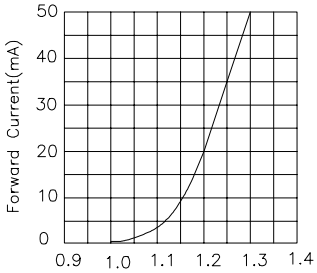
| Item | Symbol | Maximum Rating | Units |
|---|---|---|---|
| Power Dissipation | $P_T$ | 100 | mW |
| Forward Current | $I_F$ | 50 | mA |
| Peak Forward Current | $i_{FS}$ | 1.2 | A |
| Reverse Voltage | $V_R$ | 5 | V |
| Operating Temperature | $T_A$ | -40~ +85 | °C |
| Storage Temperature | $T_{STG}$ | -40~ +85 | °C |

Note:
1.1/100 Duty Cycle, 10us Pluse Width.

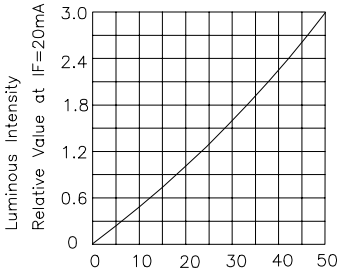


RELATIVE INTENSITY Vs. WAVELENGTH

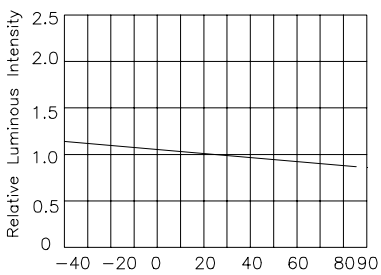
**AP3216F3C**



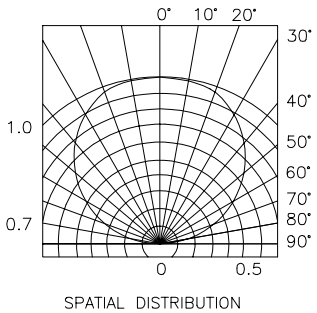
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

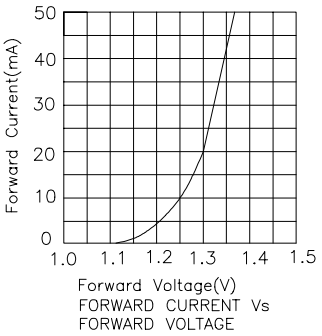


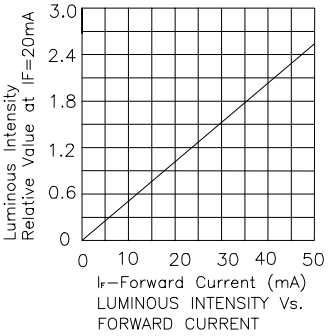
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

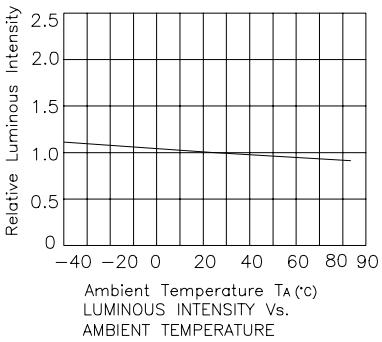


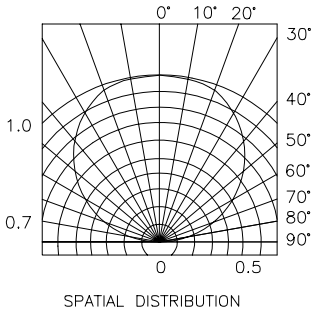
SPATIAL DISTRIBUTION

**AP3216SF4C**



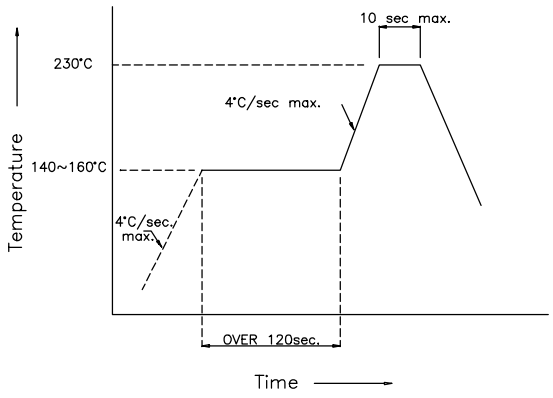



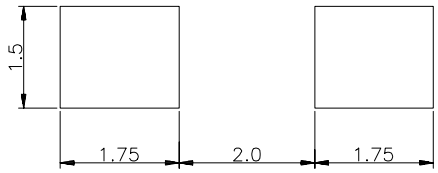



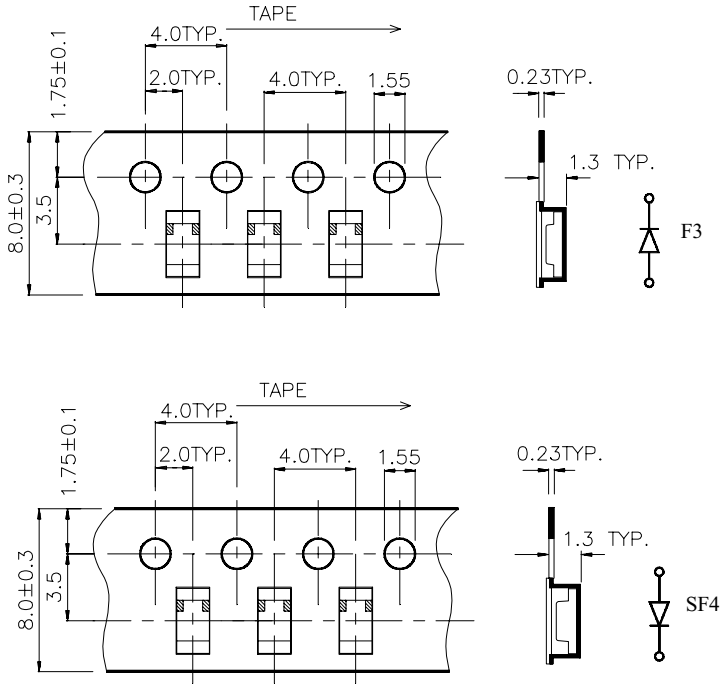

## AP3216F3C,AP3216SF4C
## SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



**Recommended Soldering Pattern**
**(Units : mm)**




**Tape Specifications**
**(Units : mm)**