

## F-TOS-F3102AMRL-N-1-HF

### SMD Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
F-TOS-F3102AMRL-N-1-HF	AlGaInP	Ultra-red	Gray	White

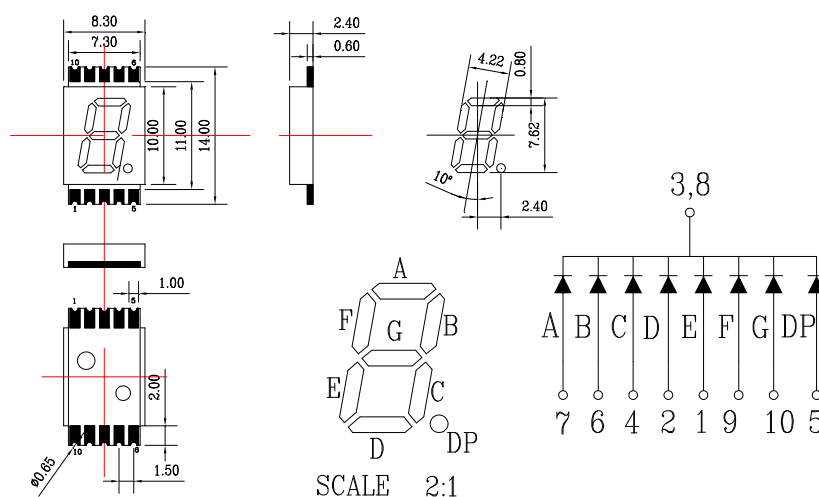
### Features

- (0.30") 7.62mm digit height
- Common cathode
- I.C. compatible
- Low power consumption
- RoHS compliant

### Applications

- Audio equipment
- Instrument panels
- Digital read out display

### Package Dimensions & Internal Circuit Diagram



#### Notes:

1. All dimensions are in millimeters, tolerance:  $\pm 0.25$  ; Angle:  $\pm 0.1^\circ$  unless otherwise noted.
2. Specifications are subject to change without notice.

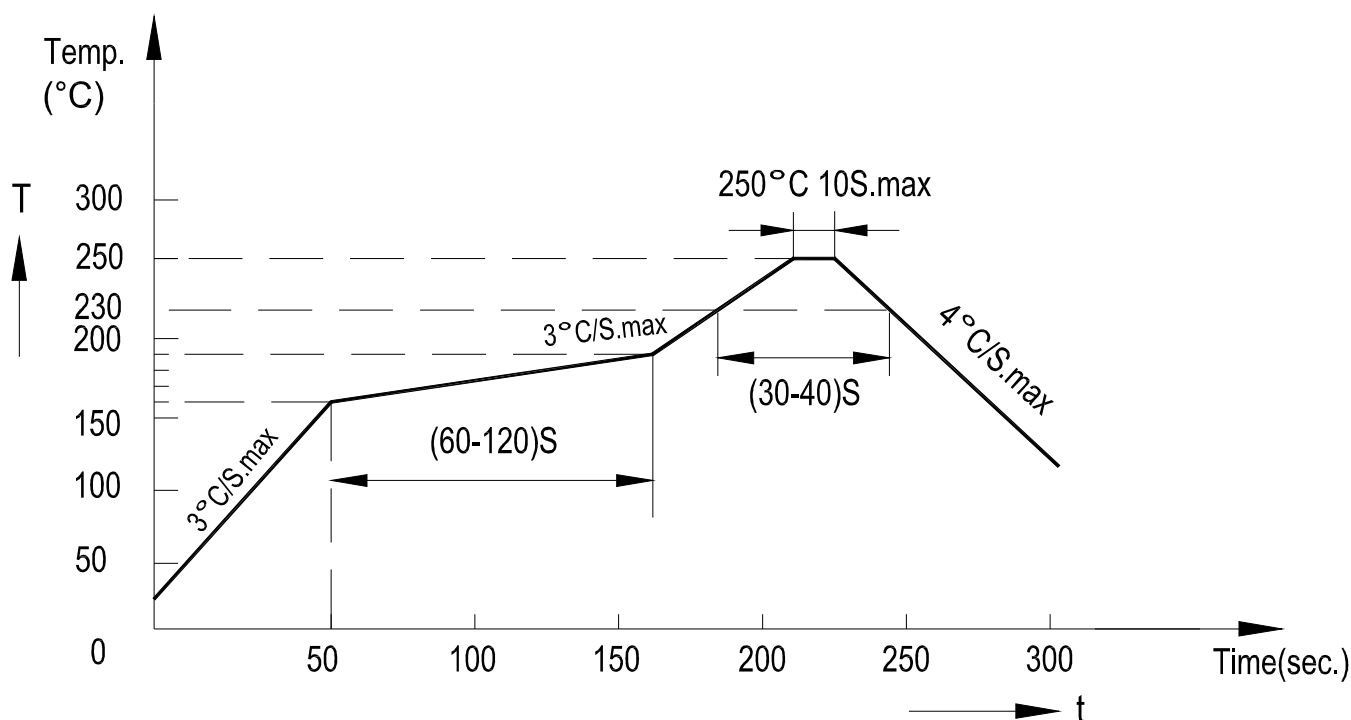
## Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature	250°C for 10 Sec	

## Electrical / Optical Characteristic @ Ta=25°C

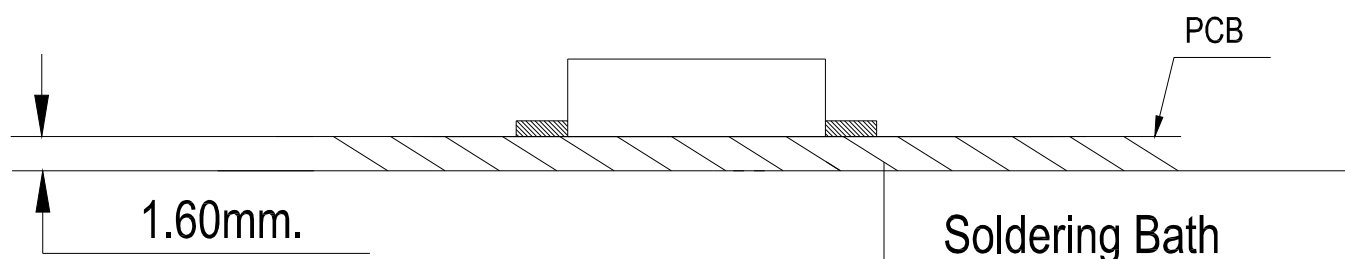
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Dominant Wavelength	$\lambda_d$	635	640	645	nm	$I_F=20\text{mA}$	
Spectral Line Half-Width	$\Delta\lambda$		15		nm	$I_F=20\text{mA}$	
Forward Voltage	$V_F$	1.8	2.0	2.3	V	$I_F=20\text{mA}$	
Reverse Current	$I_R$			10	$\mu\text{A}$	$V_R=5\text{V}$	
Luminous Intensity Matching Rate	$I_v\text{-m}$			2.0:1		$I_F=20\text{mA}$	

## Soldering Profile

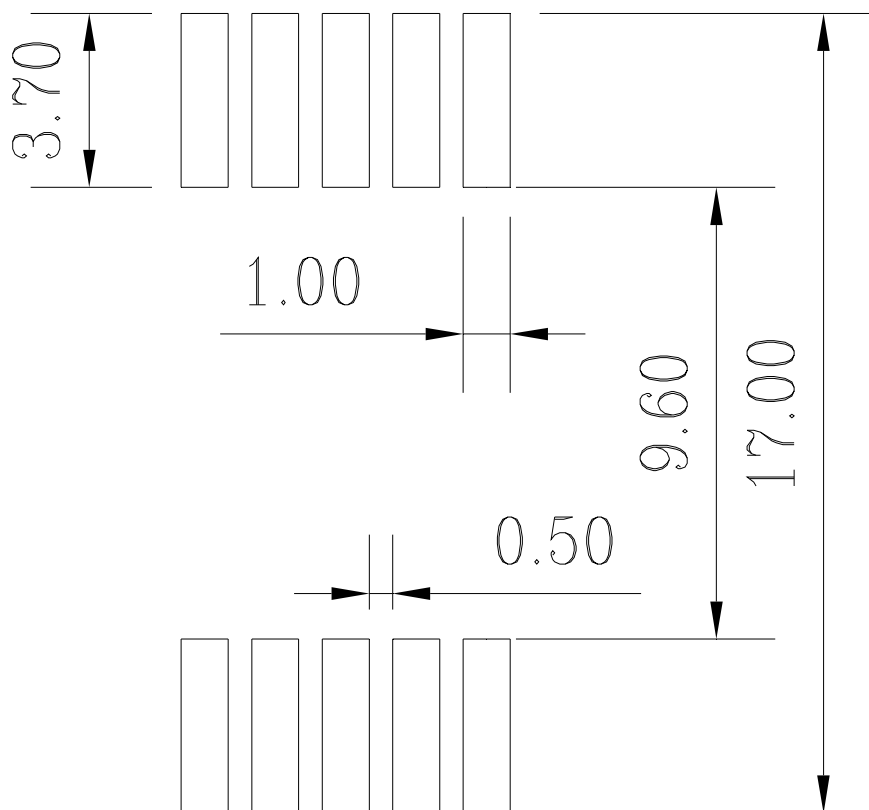


Number of reflow process shall be 2 times or less

1. Manual soldering temperature : Max  $320^{\circ}\text{C}$  for 3 Sec.
2. Can be second manual soldering, but must be cooling before second manual soldering, In order to guarantee the soldered area is to be smoothly covered with soldering, can delay the soldering time, but not to exceed 20s every pad, because if that, the pad will be damaged.
3. The minimum distance of display seating plan to soldering bath is 1.6mm.
4. Don't cause stress to the epoxy resin while it is exposed to high temperature.



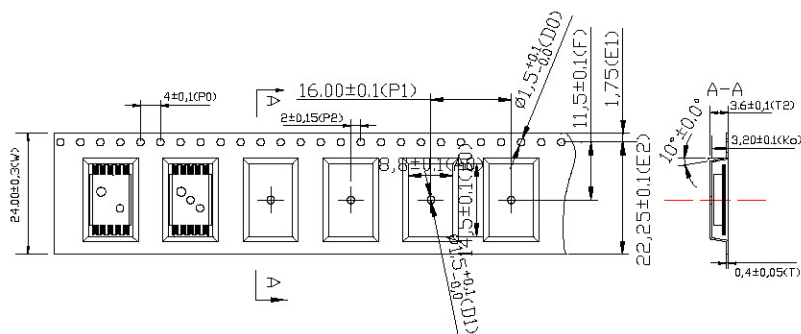
## Recommended Soldering Pattern and Storage Condition



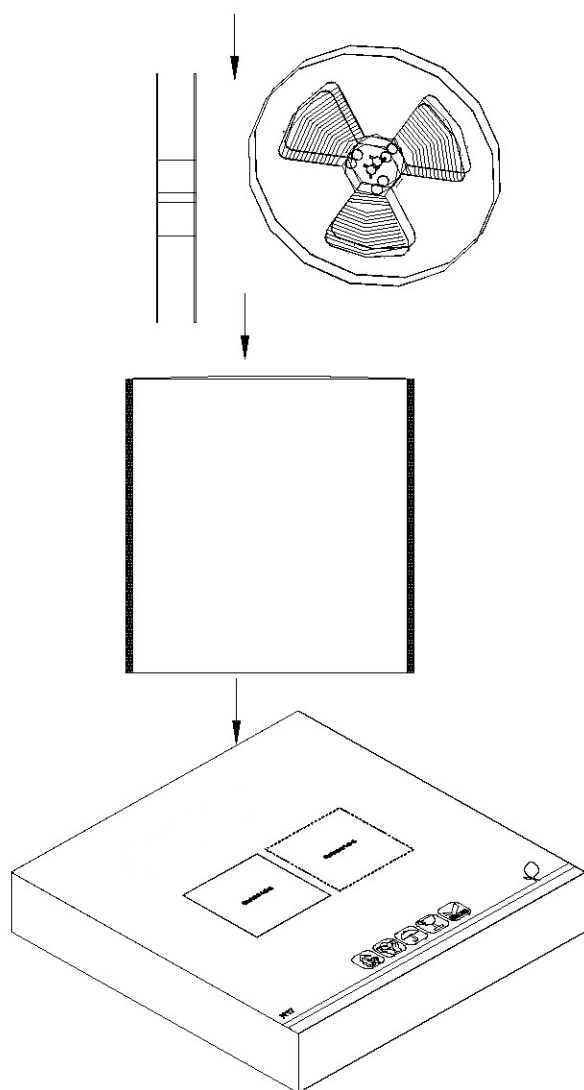
1. This part is a moisture sensitive device, According to JEDEC level 4.
2. The storage condition of packed:  $\leq 40^{\circ}$  / 90%RH, 12 months or  $\leq 10\%$ RH.
3. The storage condition of unpacked:  $\leq 30^{\circ}$  / 60%RH, 72 Hrs or  $\leq 10\%$ RH.

This part can endure ultrasonic cleaning, the solvent hydrocarbon is suitable but isopropyl-alcohol base is not.

## Package Description



1200 Pcs/ Roll



1200 Pcs/ Box