

## 598 SERIES Low Profile SMD LED 0603 Package

### MECHANICAL / SPECIFICATIONS

PART NUMBER:

598-2N01-107F

DIMENSIONS:

1.60 x 0.80 x 0.25mm

LENS COLOR: **Yellow Diffused**

STANDARD PACKAGING: **4000 pcs/reel**

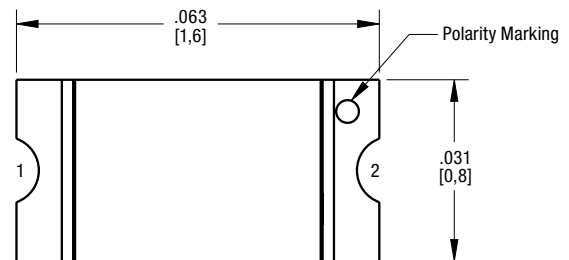
MOISTURE SENSITIVITY LEVEL: **3**

### CERTIFICATIONS & RATINGS

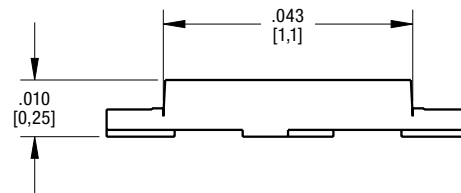
RoHS Compliant

### DIMENSIONS inches [mm]

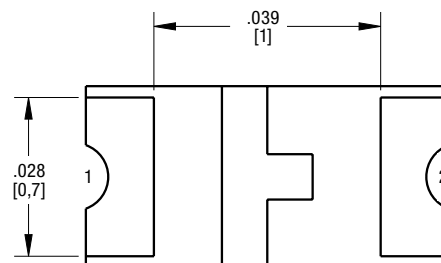
#### TOP VIEW



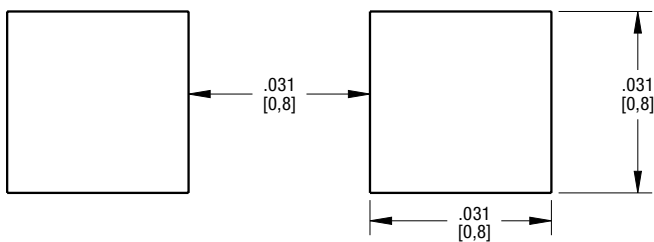
#### SIDE VIEW



#### BOTTOM VIEW



### RECOMMENDED PAD LAYOUT



### LED SCHEMATIC



1. All dimensions are in millimeters.  
2. Tolerance is  $\pm 0.2$ mm unless otherwise noted.

Part Number	Chip Material	Emitted Color	Lens Type
598-2N01-107F	InGaN	○ White	Yellow Diffused

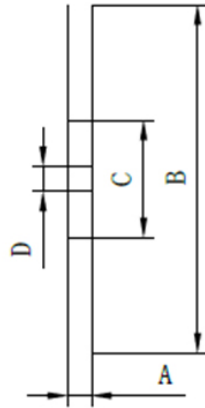
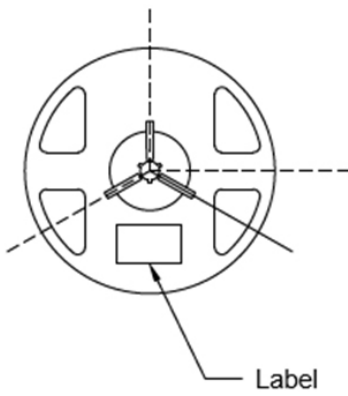
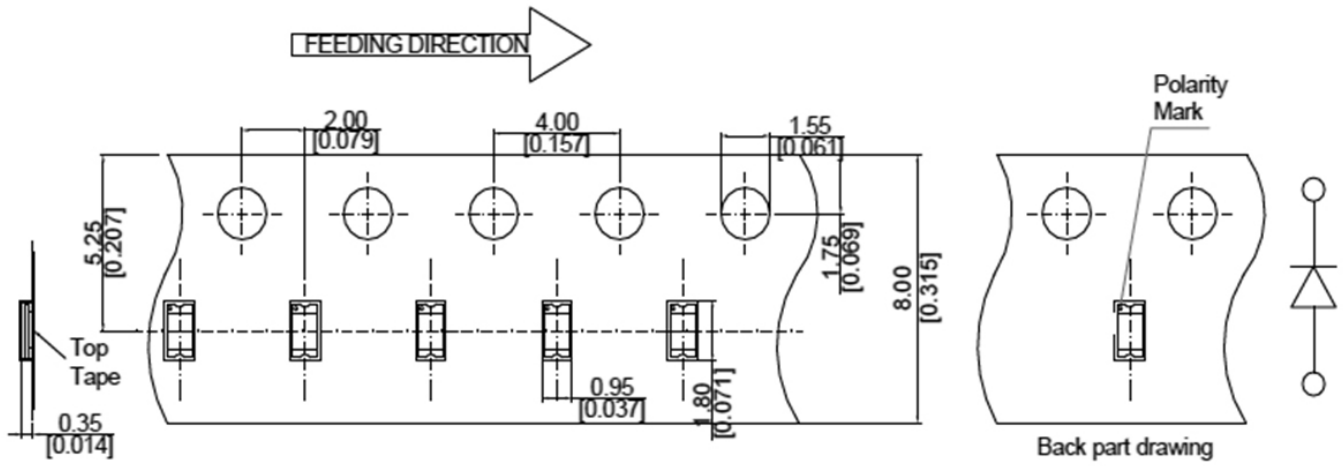
ABSOLUTE MAXIMUM RATINGS @ TA=25°C

Parameter	Symbol	Maximum Rating	Unit
		White	
Peak Forward Current (1/10 Duty Cycle and 0.1ms pulse width)	$I_{FP}$	60	mA
Power Dissipation	$P_d$	72	mW
Forward Current	$I_F$	20	mA
Reverse Voltage (VR)	$I_R$	5V	
Operating Temperature Range	$T_{opr}$	-40°C to +85°C	
Storage Temperature Range	$T_{stg}$	-40°C to +85°C	
IR Reflow Soldering Profile For Lead Free Soldering		260°C for 10 sec	

ELECTRICAL / OPTICAL CHARACTERISTICS @ TA=25°C

Parameter	Symbol	White			Unit	Test Condition
		Min.	Typ.	Max.		
Luminous Intensity	IV	800	1200	1800	mcd	$I_f=20mA$
Viewing Angle	2θ 1/2		140		deg	$I_f=20mA$
Forward Voltage	$V_F$	2.6	3.2	3.6	V	$I_f=20mA$
Chromaticity Coordinates	X	0.26		0.28	CIE	$I_f=20mA$
Chromaticity Coordinates	Y	0.25		0.28	CIE	$I_f=20mA$
Reverse Current	$I_R$			10	μA	$V_R=5V$

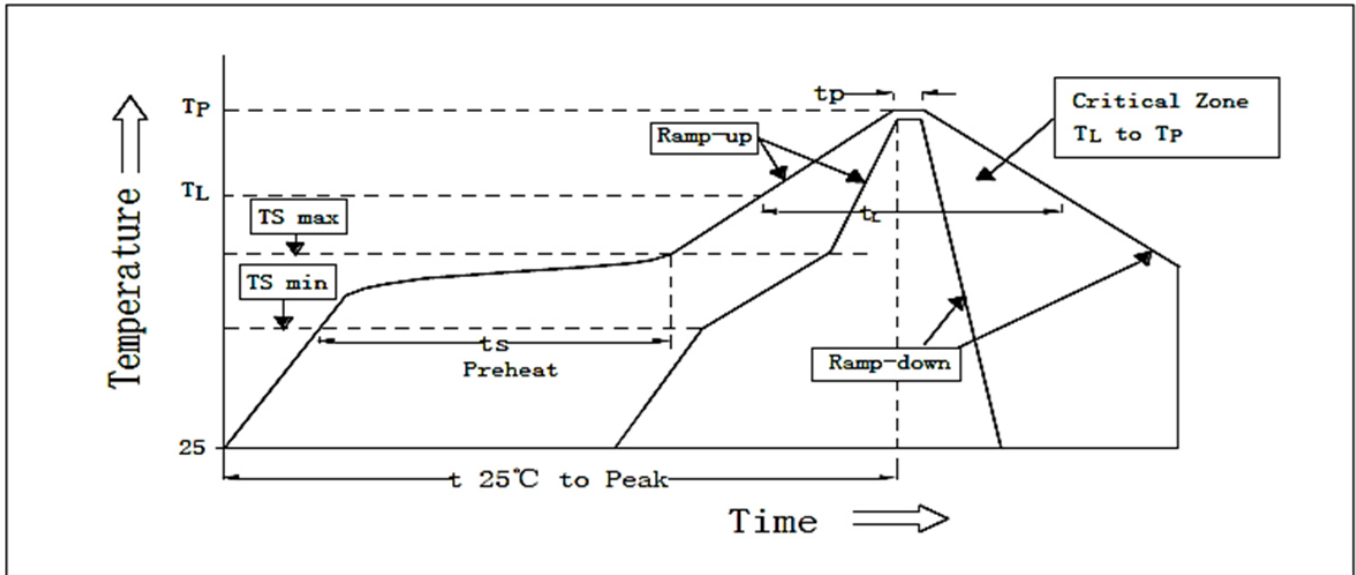
TAPE AND REEL SPECIFICATIONS



A	8.0 ± 0.1mm
B	178 ± 1mm
C	60 ± 1mm
D	13.0 ± 0.5mm

Note: 1. Packaging is 4000 pcs per reel  
2. MSL Level: 3

REFLOW SOLDERING PROFILE



Average temperature rise speed (T <sub>max</sub> T <sub>p</sub> )	Max 3°C/ s
Preheating: minimum temperature (T <sub>min</sub> )	150°C
Preheating: Max temperature (T <sub>max</sub> )	200°C
Preheating: Time (T <sub>min</sub> T <sub>max</sub> )	60s-120s
Time limited to maintain high temperature: the temperature (T <sub>L</sub> )	217 °C
Time limited to maintain high temperature: The Time (t <sub>L</sub> )	60s-150s
Peak / Classification of temperature: (T <sub>p</sub> )	260 °C
Time limit classification of peak temperature time (t <sub>p</sub> )	Max 10s
Hold time within 5 °C with the actual peak temperature (TP)	Max 30s
Cooling speed	Max 6 °C/ s
Needed time from 25 °C to T <sub>p</sub>	Max 8 minutes