



599 SERIES  
**MicroLED® SMD LED**  
**Right Angle**  
**Single-Color 1208**  
3.0 x 2.0 x 1.0mm

**MECHANICAL / SPECIFICATIONS**

DIMENSIONS:  
3.0 x 2.0 x 1.0mm

STANDARD PACKAGING:  
3000 / Reel

CERTIFICATIONS & RATINGS  
ROHS Compliant

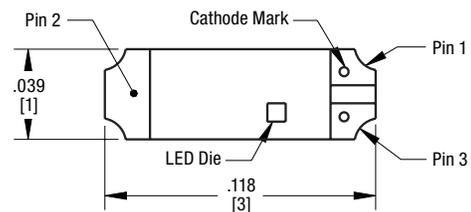
FEATURES & BENEFITS

MOISTURE SENSITIVITY LEVEL: 2a  
Compatible with Automatic Placement Equipment

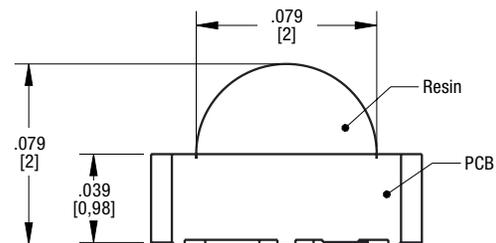
COUNTRY OF ORIGIN  
Taiwan

**DIMENSIONS inches [mm]**

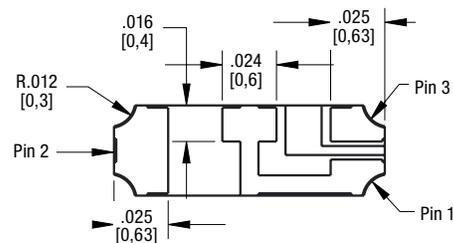
**TOP VIEW**



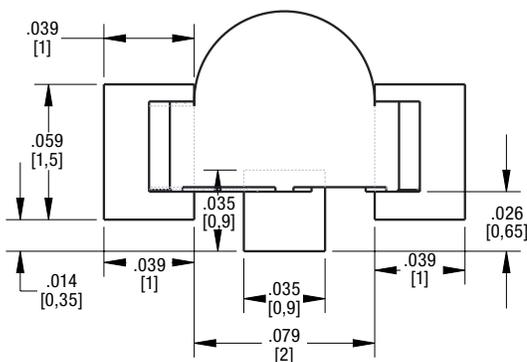
**SIDE VIEW**



**BOTTOM VIEW**



**RECOMMENDED PAD LAYOUT**



**LED SCHEMATIC**



ELECTRICAL/OPTICAL CHARACTERISTICS (T<sub>Soldering</sub> 25°C)

Part Number	Emitted Color	Material	Lens Color	Luminous Intensity (mcd)			Dominant Wavelength (nm)			Forward Voltage (V)			Viewing Angle (°deg.)	Reverse Current Intensity (μA)
				Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
				If=20mA										
<a href="#">599-0Q10-147F</a>	● Red	AlGaInP	Clear	28	72	180	615	624	635	1.6	2.0	2.4	125	10
<a href="#">599-0Q30-147F</a>	● Orange	AlGaInP	Clear	71	113	180	600	605	612	1.6	2.0	2.4		
<a href="#">599-0Q40-147F</a>	● Yellow	AlGaInP	Clear	45	72	180	584	589	595	1.6	2.0	2.4		
<a href="#">599-0Q60-147F</a>	● Yellow-Green	AlGaInP	Clear	18	28	72	564	571	576	1.6	2.1	2.4		
<a href="#">599-0Q80-147F</a>	● Green	InGaN	Clear	180	285	450	515	525	535	2.75	3.3	3.9		
<a href="#">599-0Q90-147F</a>	● Blue	InGaN	Clear	45	72	180	460	470	476	2.7	3.3	3.9		
<a href="#">599-2Q01-147F</a>	○ White	InGaN	Yellow Diffused	90	200	320	*x=0.3100 y=0.3100			2.9	3.4	3.7	130	

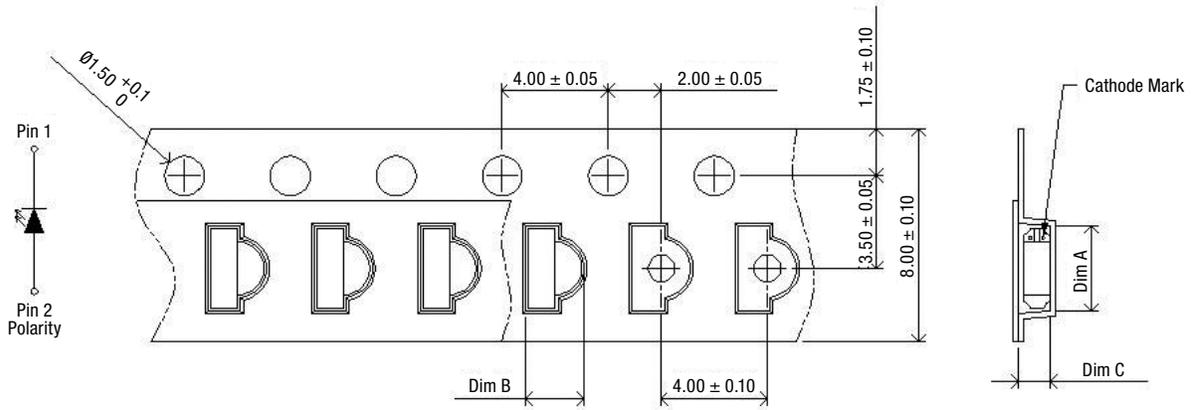
\*Chromaticity Coordinates

ABSOLUTE MAXIMUM RATINGS (T<sub>Soldering</sub> 25°C)

LED Color	Power Dissipation (mW)	Forward Current (mA)	Reverse Voltage (V)	Pulse Forward Current *(mA)	Operating Temperature (°C)	Storage Temperature (°C)
● Red	48	20	5	100	-40~+85	-40~+100
● Orange	48	20	5	100	-40~+85	-40~+100
● Yellow	48	20	5	100	-40~+85	-40~+100
● Yellow-Green	48	20	5	100	-40~+85	-40~+100
● Green	78	20	5	80	-40~+85	-40~+100
● Blue	78	20	5	80	-40~+85	-40~+100
○ White	74	20	5	60	-40~+85	-40~+100

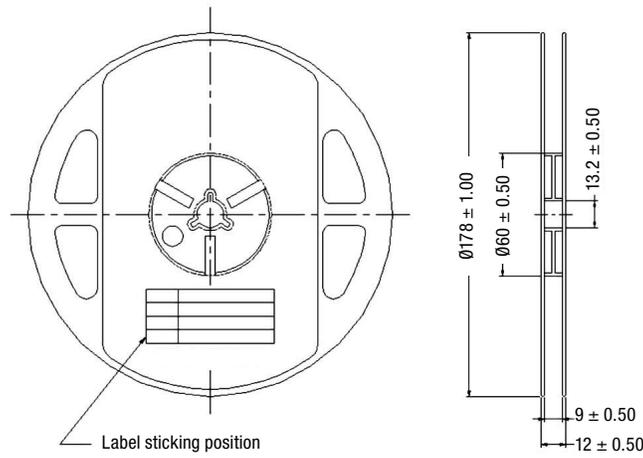
\*Condition for IFP is pulse of 1/10 duty and 0.1msec width

TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
3.2±0.1	2.2±0.1	1.2±0.1	3K

Unit: mm



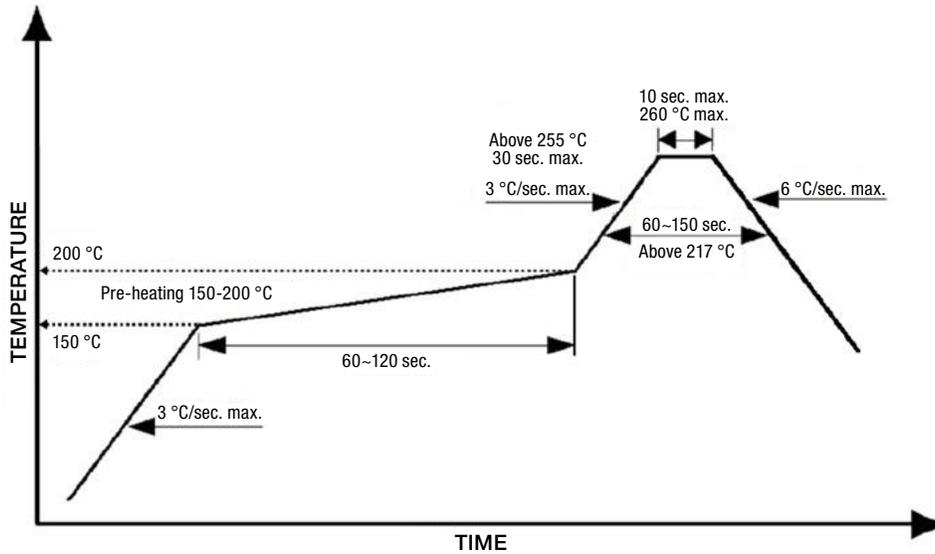
Unit: mm

### REFLOW SOLDERING

Recommend soldering paste specifications:

1. Operating temp.: Above 217°C ,60~150 sec.
2. Peak temp.:260°C Max.,10sec Max.
3. Reflow soldering should not be done more than two times.

### REFLOW SOLDER PROFILE



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