



599 SERIES
Infrared SMD LED
0603 Package Top View 940nm
With Dome Lens

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[599-17C0-147IRF](#)

DIMENSIONS:
1.6 x 0.8 x 0.95mm

LENS COLOR:
Clear

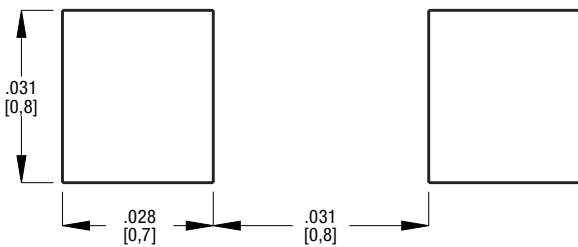
LENS MATERIAL:
Epoxy

STANDARD PACKAGING:
4000/reel

MOISTURE SENSITIVITY LEVEL:
2a

CERTIFICATIONS & RATINGS
RoHS Compliant

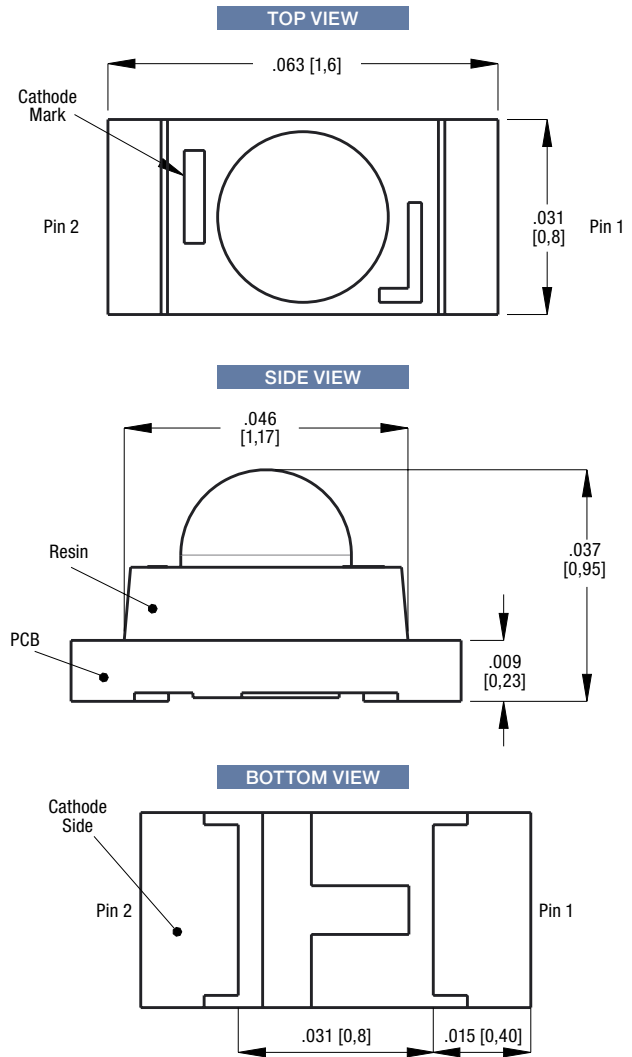
RECOMMENDED PAD LAYOUT



LED SCHEMATIC



DIMENSIONS inches [mm]



ABSOLUTE MAXIMUM RATINGS AT 25°C

Symbol	Parameter	Ratings	Units	Notes
I_F	Forward Current	50	mA	
I_{FP}	Peak Current	500	mA	1
V_R	Reverse Voltage	5	V	
T_{opr}	Operating Temperature	-40~+85	°C	
T_{stg}	Storage Temperature	-40~+100	°C	
T_{sol}	Soldering Temperature	260	°C	2

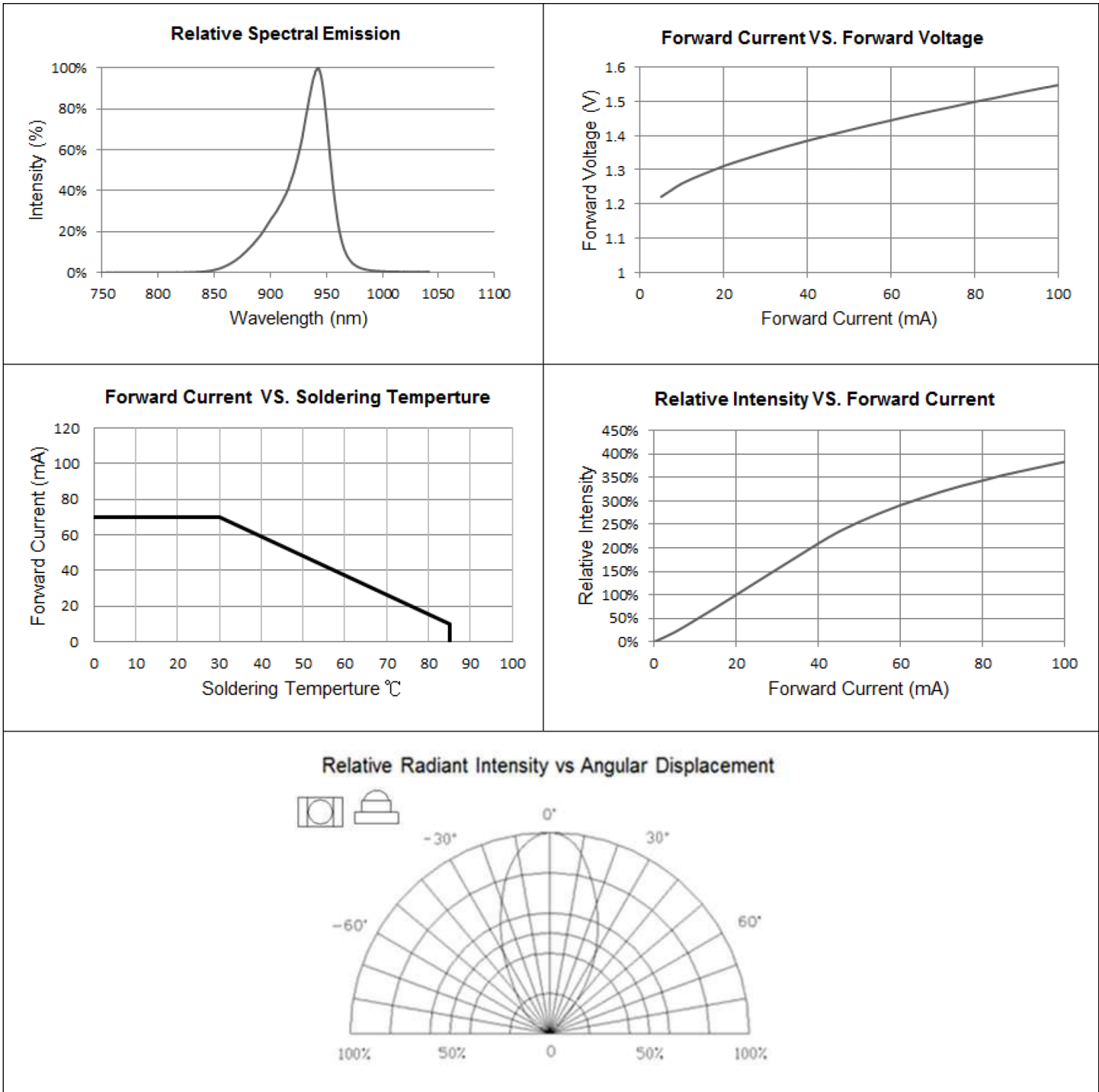
Notes:

1. IFP Conditions — Pulse Width $\leq 100\mu s$ and Duty $\leq 1\%$.
2. Soldering time ≤ 5 seconds.

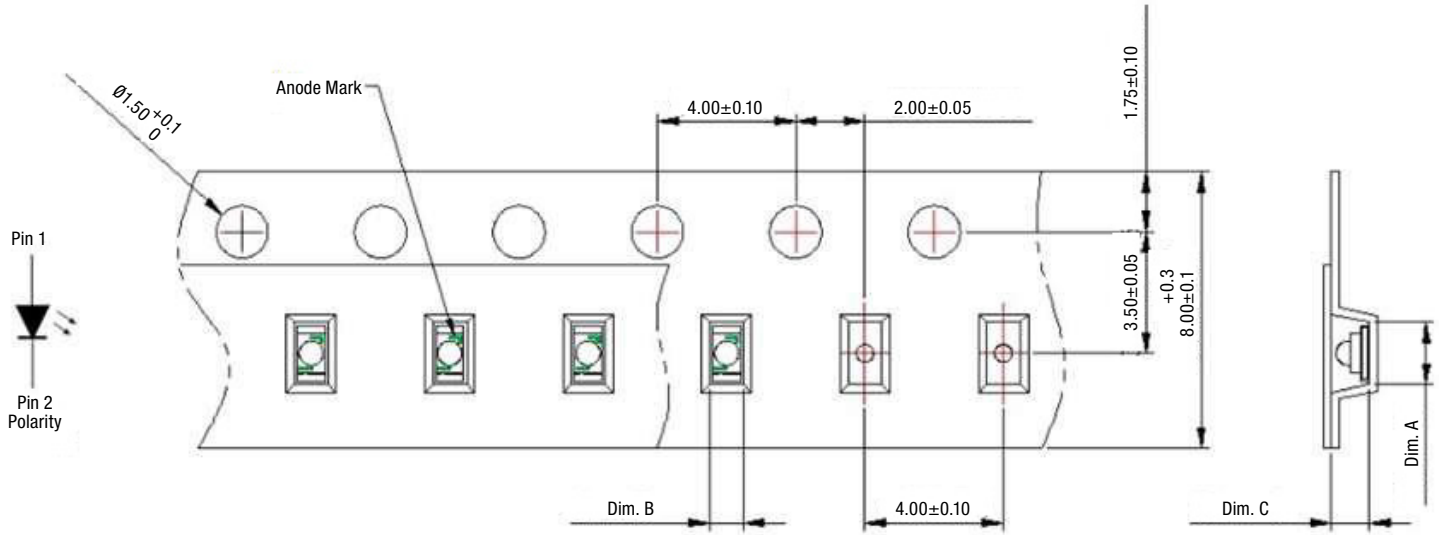
ELECTRICAL - OPTICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Min	Typ	Max	Unit
I_e	Radiant Intensity	$I_F=20mA$	4.0	-	11.5	mW/sr
λ_p	Peak Wavelength	$I_F=20mA$	-	940	-	nm
$\Delta\lambda$	Spectral bandwidth	$I_F=20mA$		33	-	nm
V_F	Forward Voltage	$I_F=20mA$	1.2	-	1.8	V
I_R	Reverse Current	$V_R=5V$	-	-	10	μA
$2\theta_{1/2}$	Angle of Half Intensity	$I_F=20mA$	-	60	-	deg

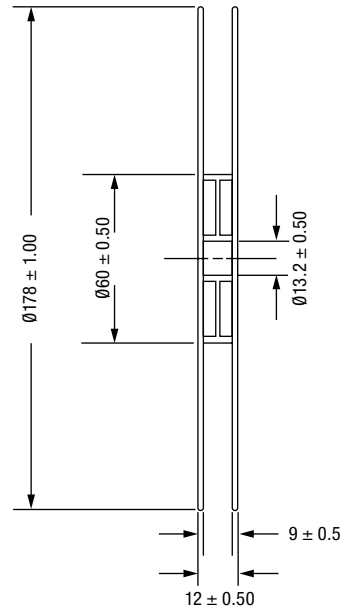
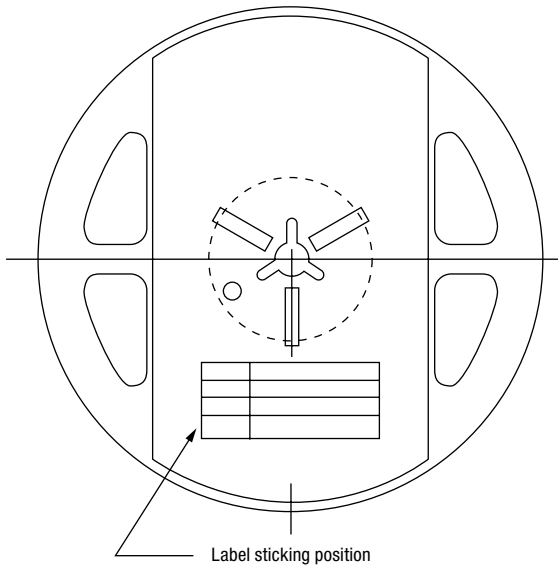
TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS



TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
1.85±0.05	0.88±0.05	0.95±0.05	4K



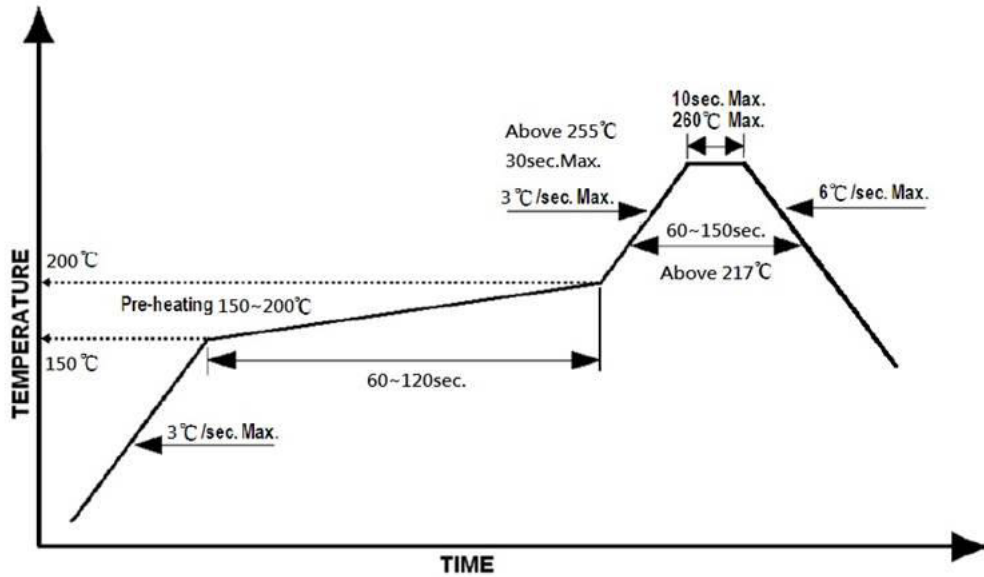
Unit: mm

REFLOW SOLDERING

Recommended soldering paste specifications:

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

LEAD-FREE SOLDER PROFILE



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