



599 SERIES

Infrared SMD LED

3528 PLCC-2 Package Top View 940nm

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[599-4FC0-147IRF](#)

DIMENSIONS:
3.5 x 2.8 x 1.9mm

LENS COLOR:
Clear

LENS MATERIAL:
Silicon

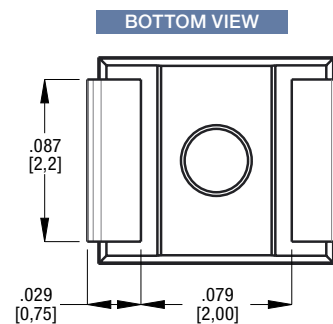
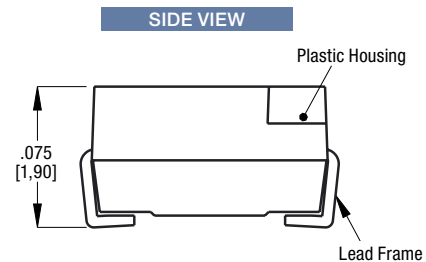
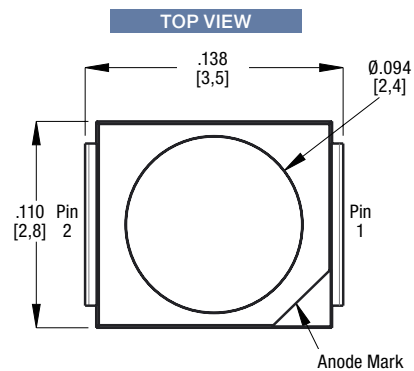
STANDARD PACKAGING:
2000/reel

MOISTURE SENSITIVITY LEVEL:
4

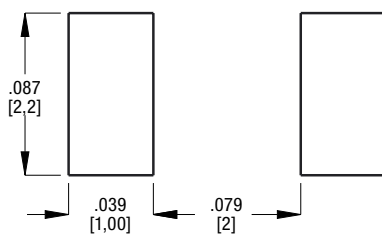
CERTIFICATIONS & RATINGS

RoHS Compliant

DIMENSIONS inches [mm]



RECOMMENDED PAD LAYOUT



LED SCHEMATIC



ABSOLUTE MAXIMUM RATINGS AT 25°C

Symbol	Parameter	Ratings	Units	Notes
I_F	Forward Current	70	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

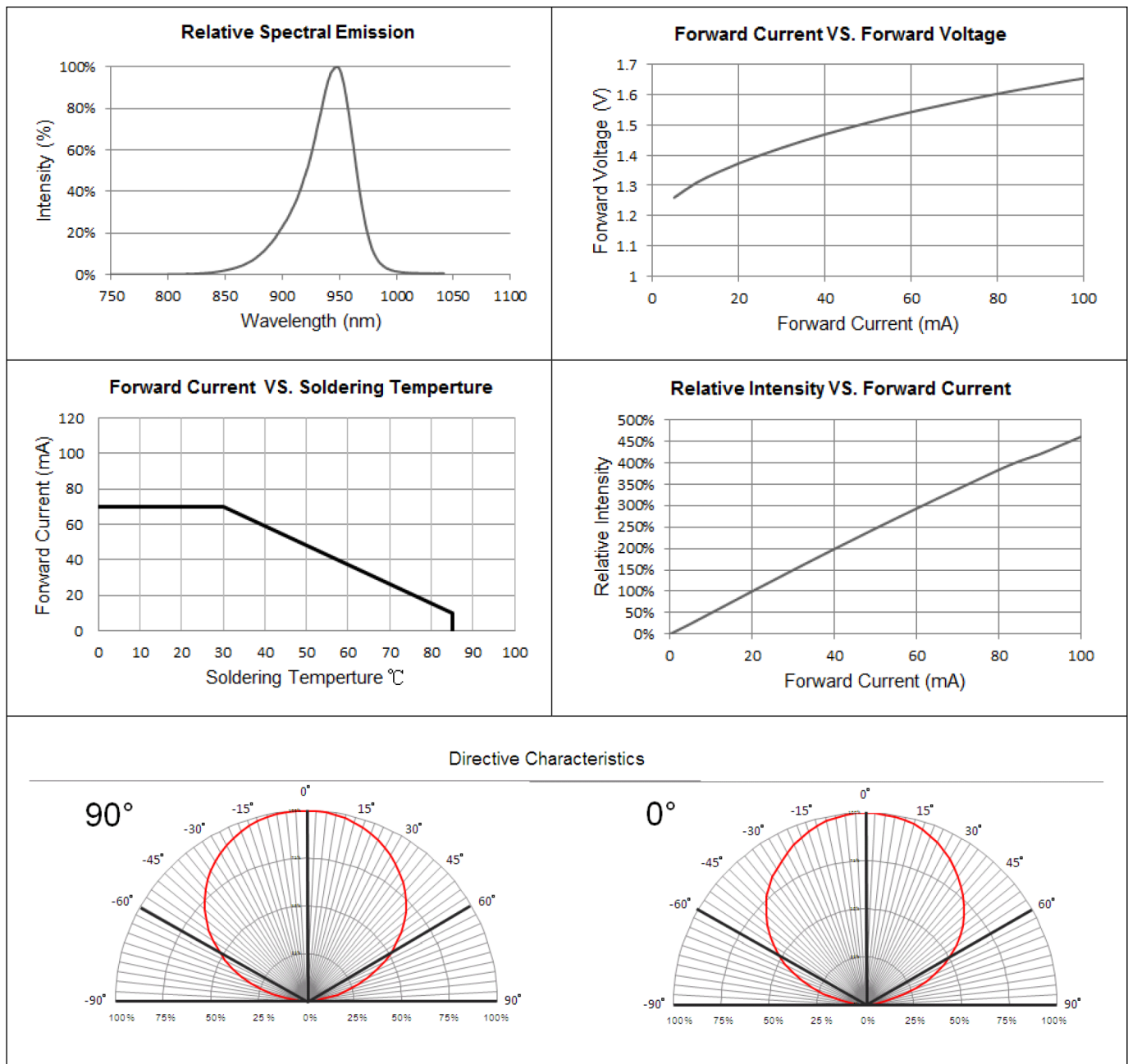
Notes:

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

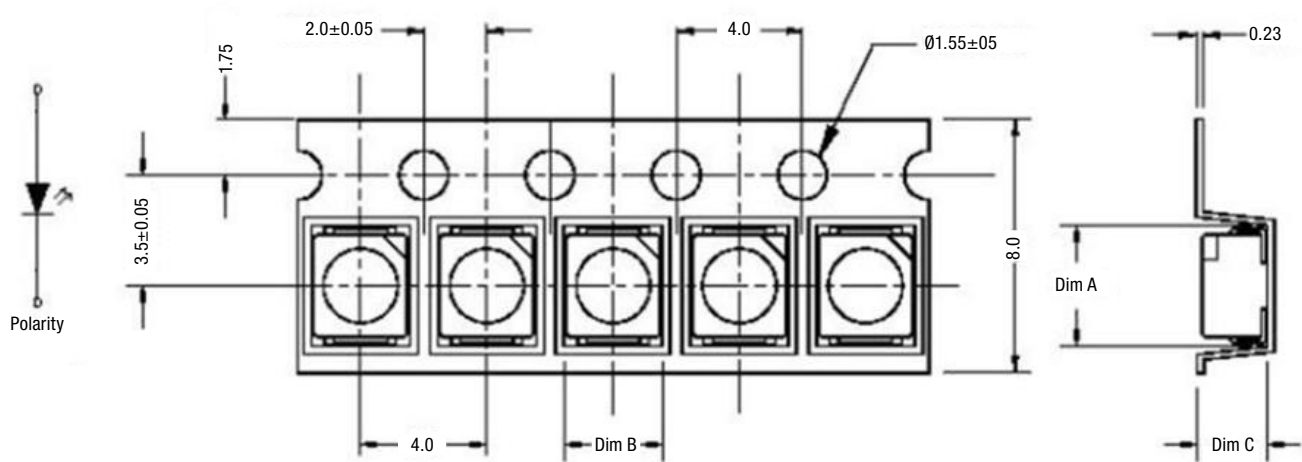
ELECTRICAL - OPTICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Min	Typ	Max	Unit
I_e	Radiant Intensity	$I_F=20mA$	3	-	7.5	mW/sr
λ_P	Peak Wavelength	$I_F=20mA$	-	940	-	nm
$\Delta\lambda$	Spectral bandwidth at 50% of I_{max}	$I_F=20mA$		30	-	nm
V_F	Forward Voltage	$I_F=20mA$	1.2	1.4	2.0	V
I_R	Reverse Current	$V_R=5V$	-	-	100	μA
$2\theta_{1/2}$	Angle of Half Intensity (X)	$I_F=20mA$	-	120	-	deg
	Angle of Half Intensity (Y)		-	120	-	

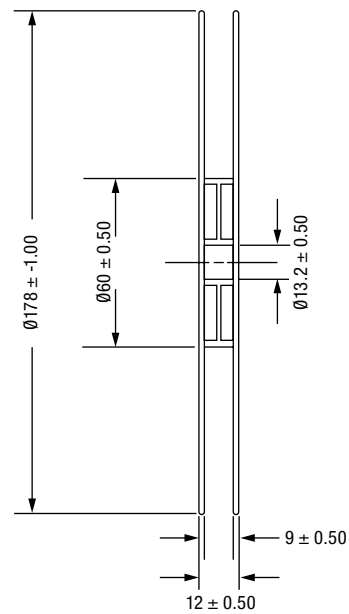
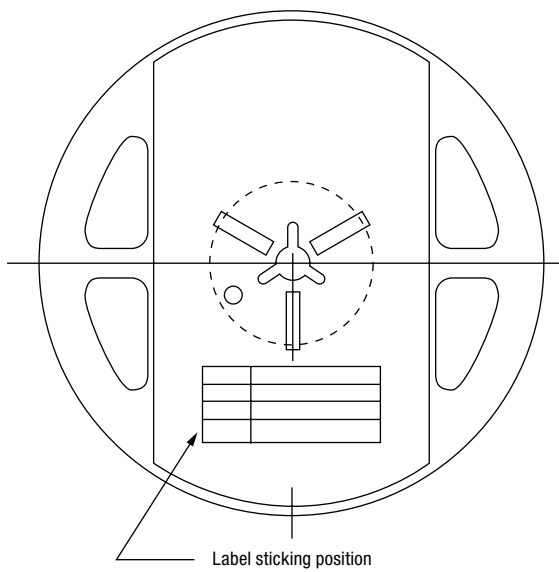
TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS



TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
3.73±0.10	2.95±0.10	2.12±0.10	2K



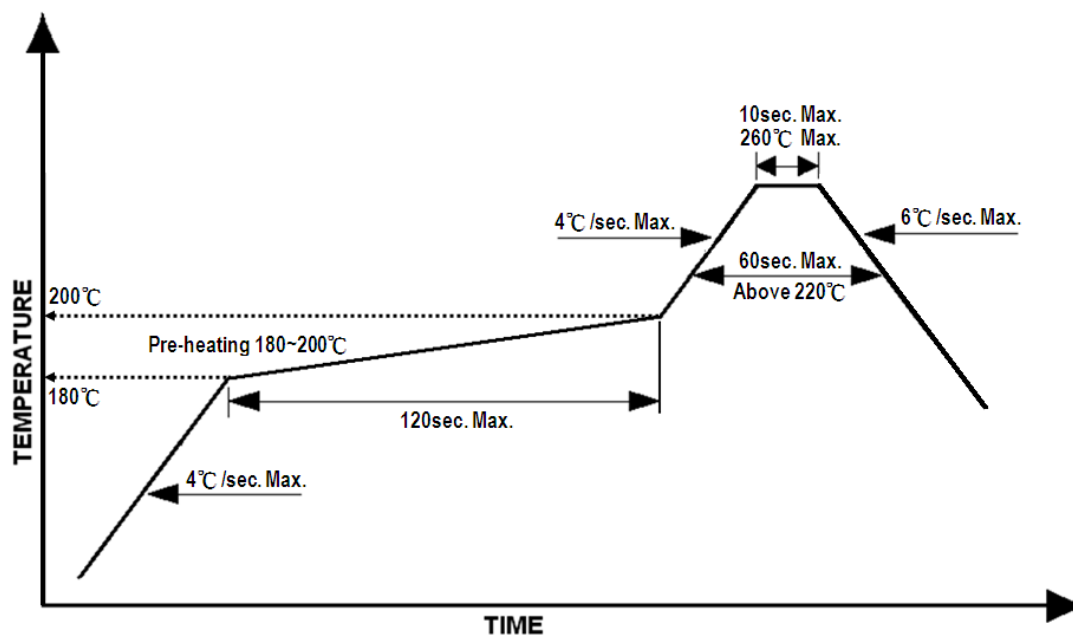
Unit: mm

REFLOW SOLDERING

Recommended soldering paste specifications:

1. Operating temp.: Above 220°C, 60sec.
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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