



599 SERIES Infrared SMD LED

1209 Package Side View 940nm
With Dome Lens

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[599-2EC0-147IRF](#)

DIMENSIONS:
3.2 x 2.55 x 1.6mm

LENS COLOR:
Diffused

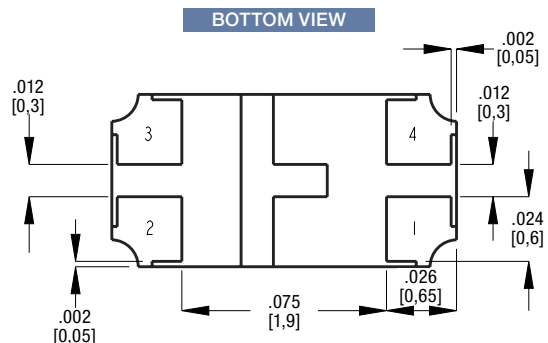
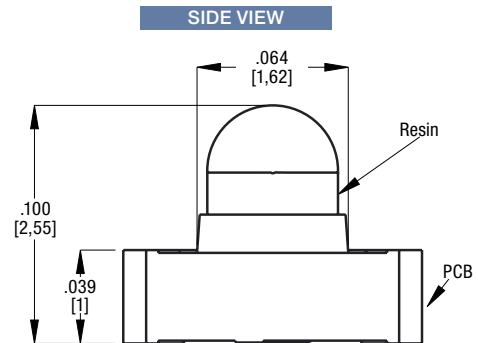
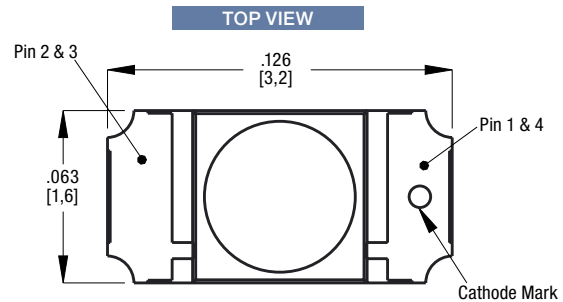
LENS MATERIAL:
Epoxy

STANDARD PACKAGING:
2000/reel

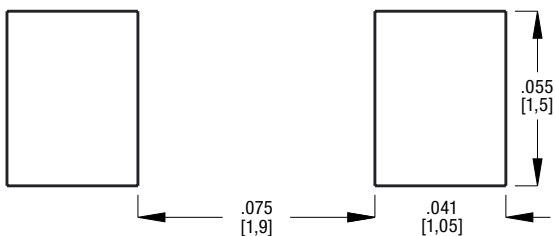
MOISTURE SENSITIVITY LEVEL:
2a

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_{st}	Storage Temperature	-40~+100	°C	
T_s	Soldering Temperature	260	°C	2

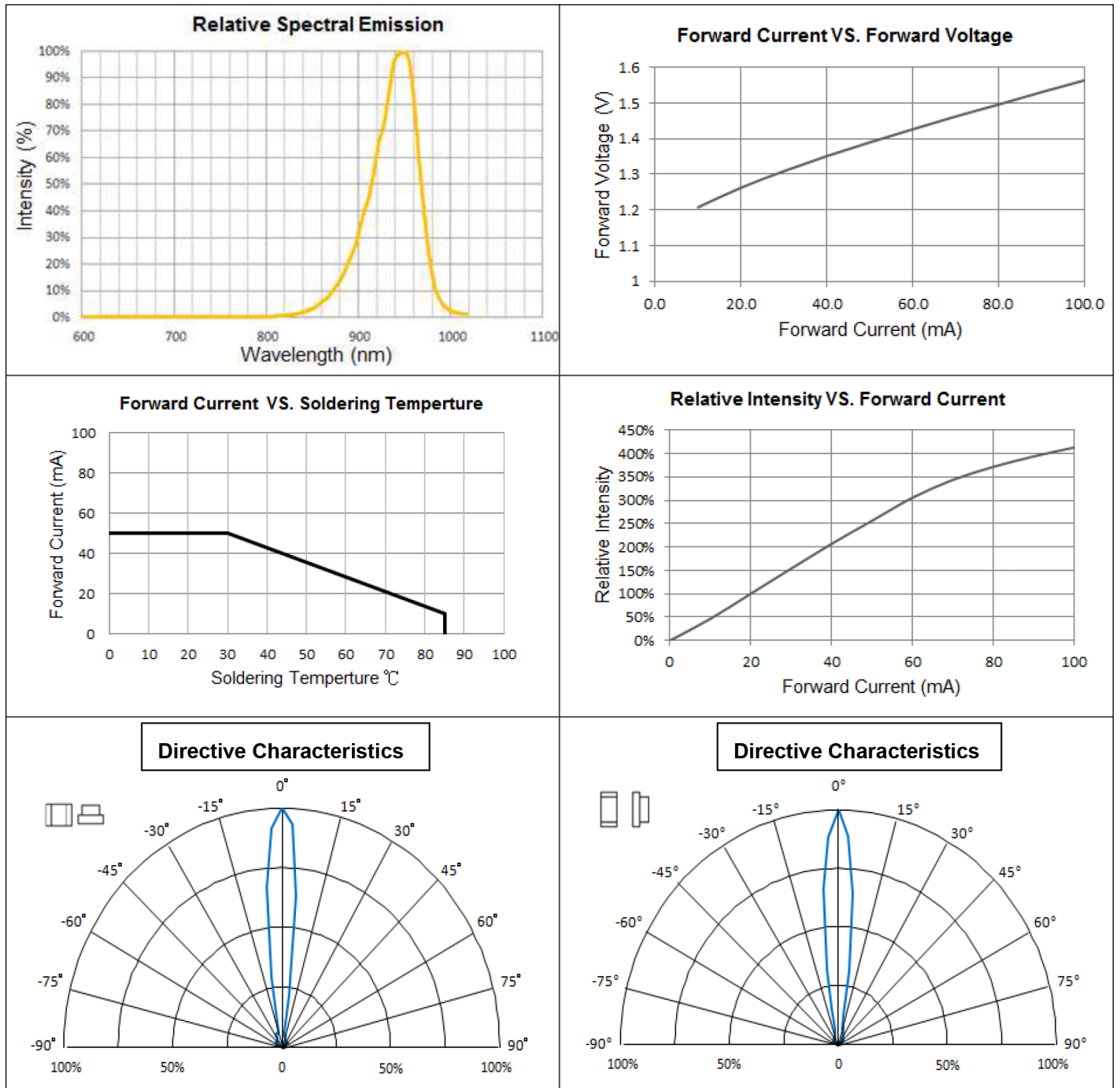
Notes:

- IFP Conditions — Pulse Width ≤ 100μs and Duty ≤ 1%.
- Soldering time ≤ 5 seconds.

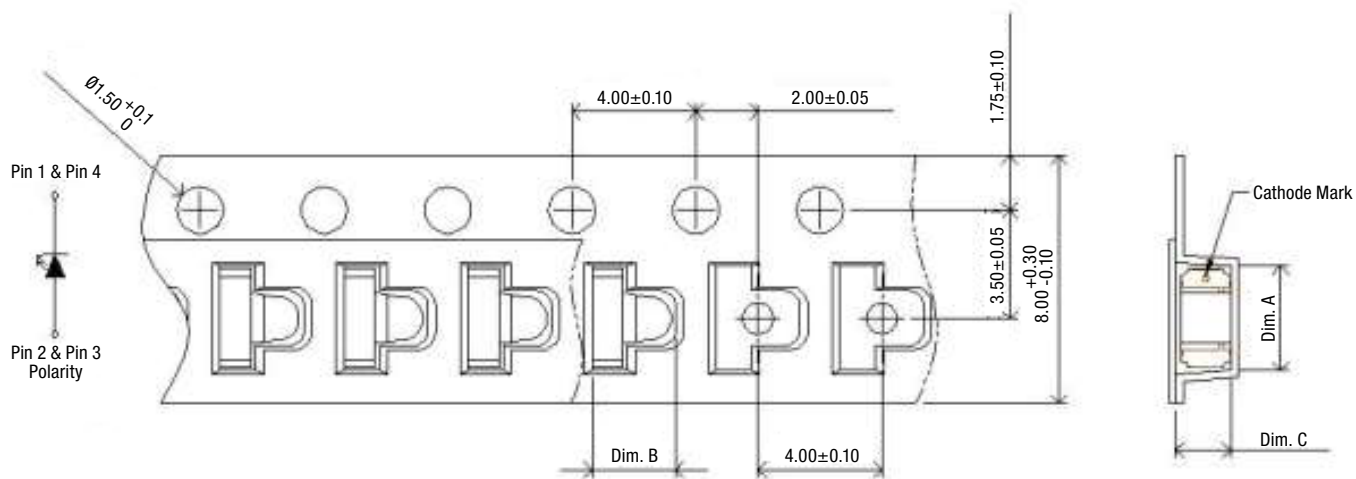
ELECTRICAL - OPTICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Min	Typ	Max	Unit
I_e	Radiant Intensity	$I_F=20mA$	3.0	4.8	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	$V_R=5V$	-	-	10	μA
$2\theta_{\frac{1}{2}}$	Angle of Half Intensity (X)	$I_F=20mA$	-	20	-	deg
	Angle of Half Intensity (Y)		-	20	-	

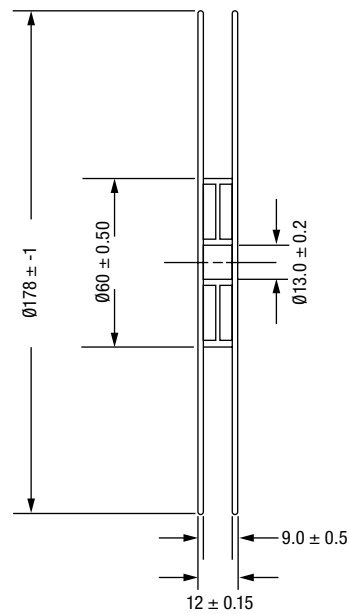
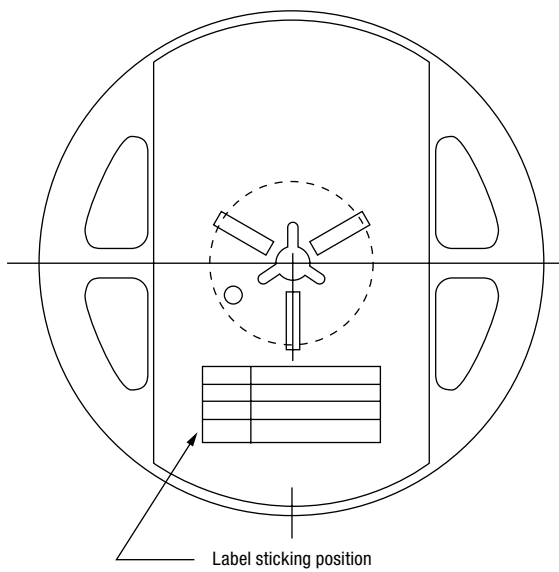
TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS



TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
3.30 ± 0.10	1.70 ± 0.10	2.2 ± 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

