



599 SERIES

Infrared SMD LED

2812 PLCC-2 Package Side View 850nm

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[599-4HA0-147IRF](#)

DIMENSIONS:
2.8 x 1.2 x 0.8mm

LENS COLOR:
Clear

LENS MATERIAL:
Silicon

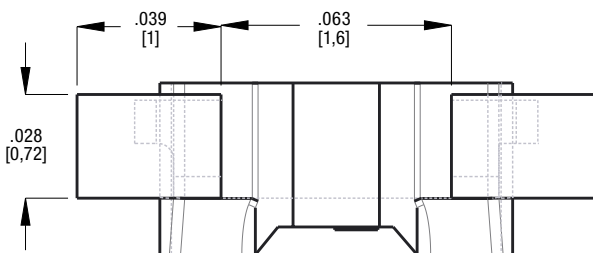
STANDARD PACKAGING:
2000/reel

MOISTURE SENSITIVITY LEVEL:
4

CERTIFICATIONS & RATINGS

RoHS Compliant

RECOMMENDED PAD LAYOUT

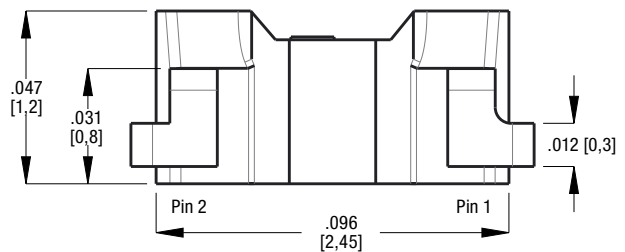


LED SCHEMATIC

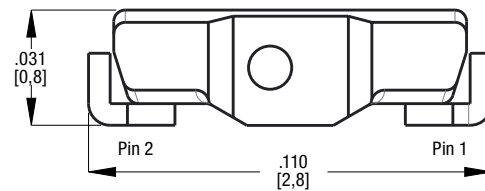


DIMENSIONS inches [mm]

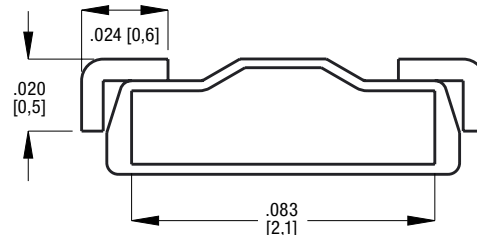
TOP VIEW



SIDE VIEW



BOTTOM VIEW



ABSOLUTE MAXIMUM RATINGS AT 25°C

Symbol	Parameter	Ratings	Units	Notes
I_F	Forward Current	100	mA	
I_{FP}	Peak Current	1000	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

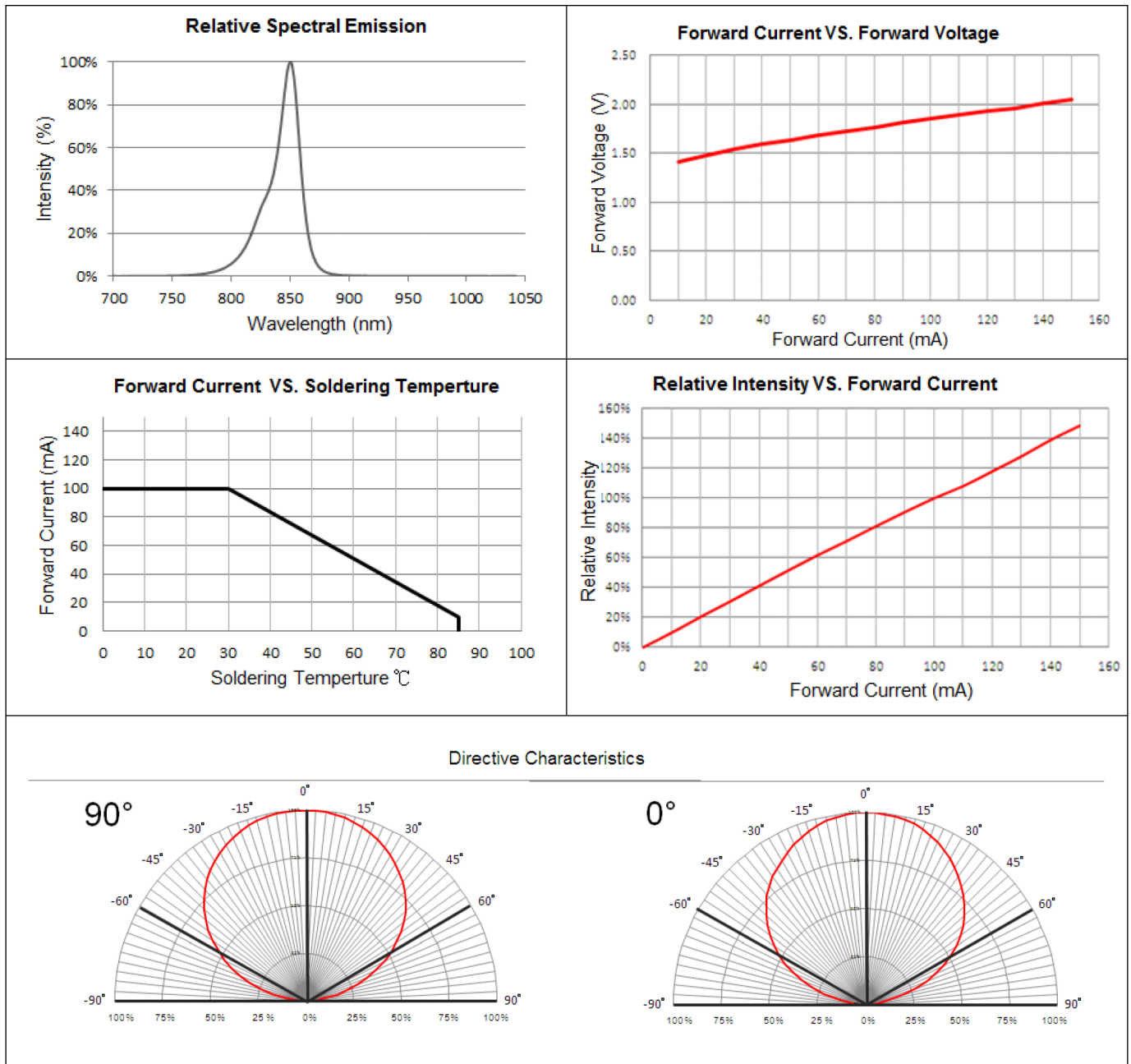
Notes:

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

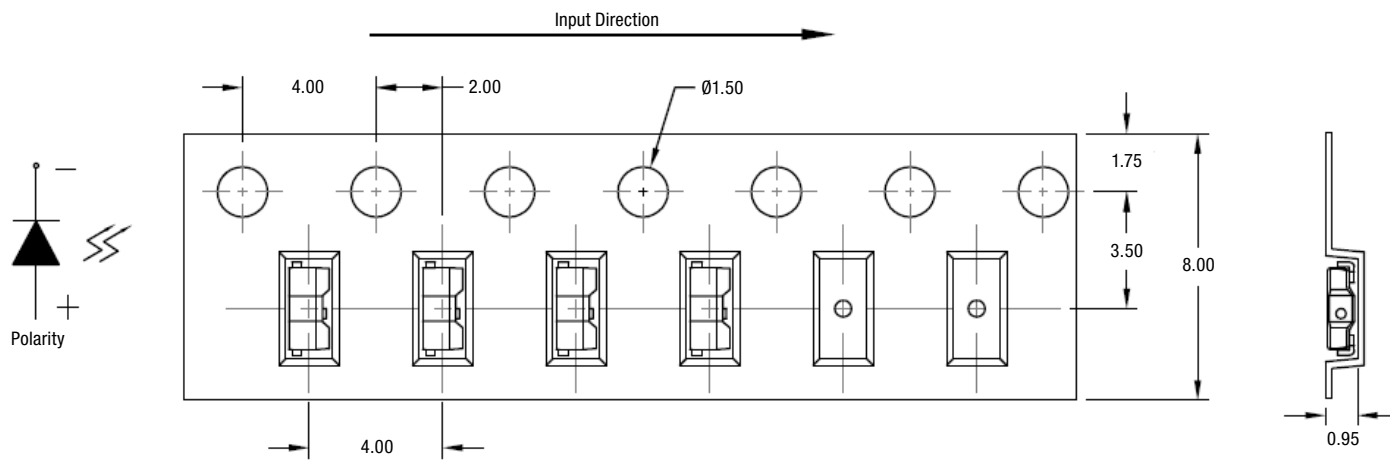
ELECTRICAL - OPTICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Min	Typ	Max	Unit
I_e	Radiant Intensity	$I_F=100mA$	10	13	17.5	mW/sr
λ_p	Peak Wavelength	$I_F=100mA$	-	850	-	nm
$\Delta\lambda$	Spectral bandwidth at 50% of I_{max}	$I_F=100mA$		30	-	nm
V_F	Forward Voltage	$I_F=100mA$	1.3	1.9	2.1	V
I_R	Reverse Current	$V_R=5V$	-	-	100	μA
$2\theta_{\frac{1}{2}}$	Angle of Half Intensity (X)	$I_F=100mA$	-	120	-	deg
	Angle of Half Intensity (Y)		-	120	-	

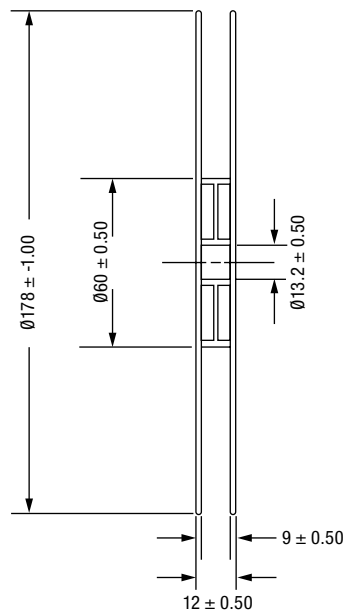
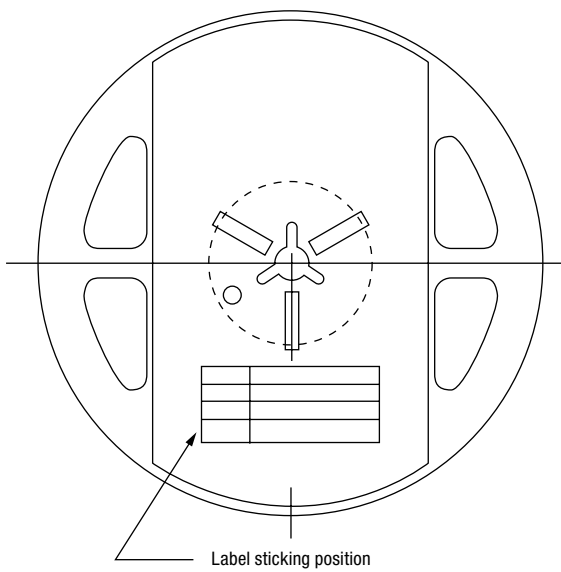
TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS



TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
3.05±0.10	1.35±0.10	0.95±0.10	2K



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

