

599 SERIES

Infrared SMD LED

1206 Package Reverse Mount 940nm

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[599-1KC0-147IRE](#)

DIMENSIONS:
3.2 x 1.6 x 1.1mm w/inner lens

LENS COLOR:
Clear

LENS MATERIAL:
Epoxy

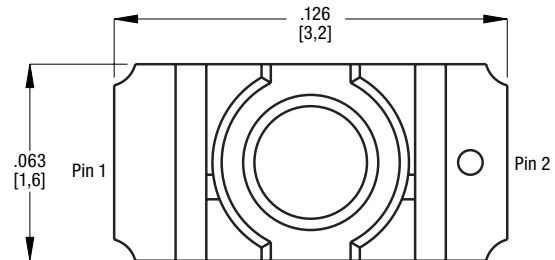
STANDARD PACKAGING:
3000/reel

MOISTURE SENSITIVITY LEVEL:
2a

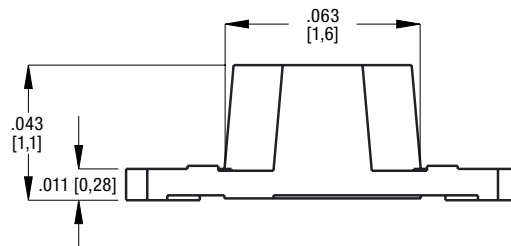
CERTIFICATIONS & RATINGS
RoHS Compliant

DIMENSIONS inches [mm]

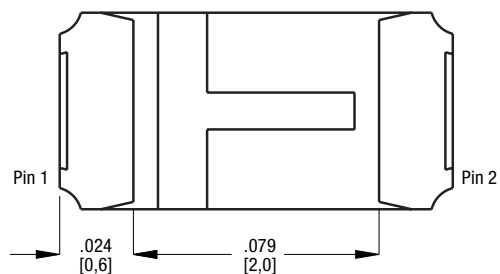
TOP VIEW



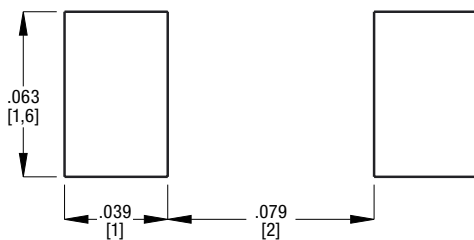
SIDE VIEW



BOTTOM VIEW



RECOMMENDED PAD LAYOUT



LED SCHEMATIC



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	≤ 10	V	
T_{opr}	Operating Temperature	-40~+85	°C	
T_{stg}	Storage Temperature	-40~+100	°C	
T_{sol}	Soldering Temperature	260	°C	2

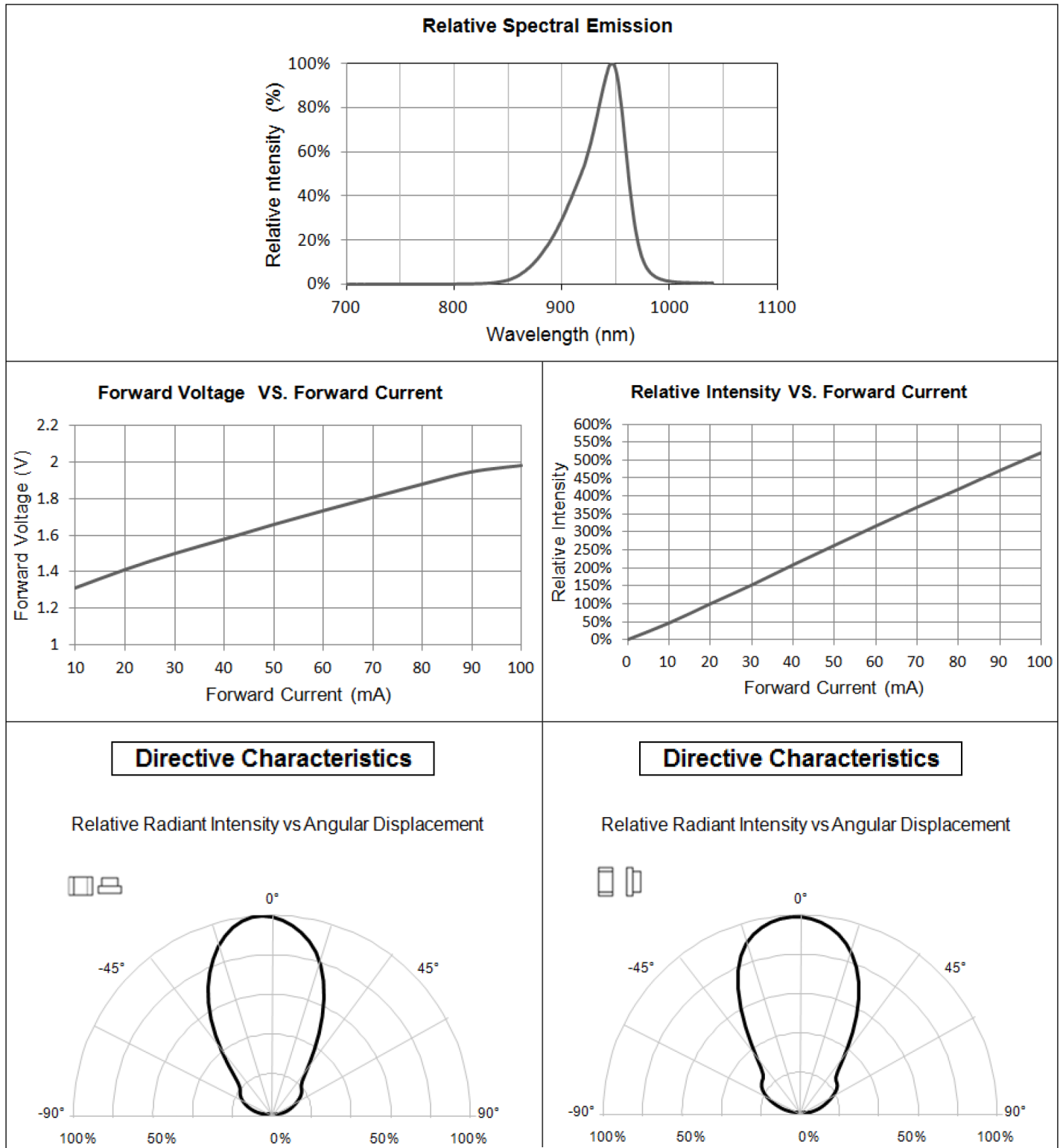
Notes:

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

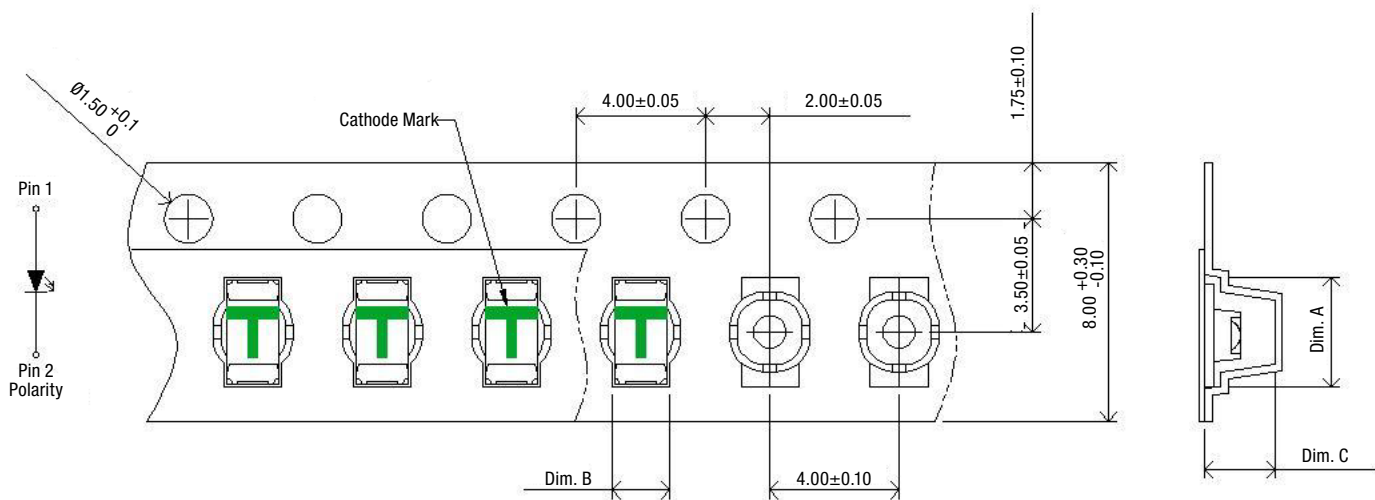
ELECTRICAL - OPTICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Min	Typ	Max	Unit
I_e	Radiant Intensity	$I_F=20mA$	3.0	4.2	6.0	mW/sr
λ_p	Peak Wavelength	$I_F=20mA$	920	943	960	nm
$\Delta\lambda$	Spectral bandwidth at 50% of I_{max}	$I_F=20mA$		50	-	nm
V_F	Forward Voltage	$I_F=20mA$	1.25	-	1.55	V
I_R	Reverse Current	$V_R=5V$	-	-	1	μA
$2\theta_{\frac{1}{2}}$	Angle of Half Intensity (X)	$I_F=20mA$	-	70	-	deg
	Angle of Half Intensity (Y)		-	70	-	

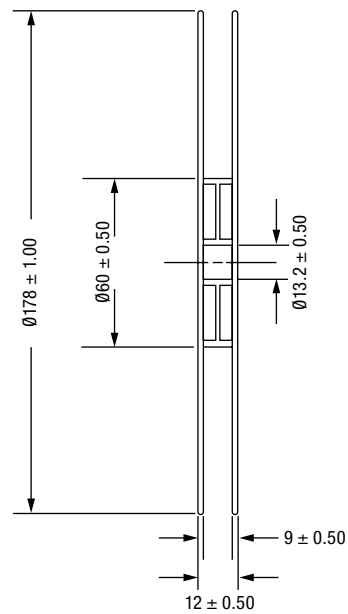
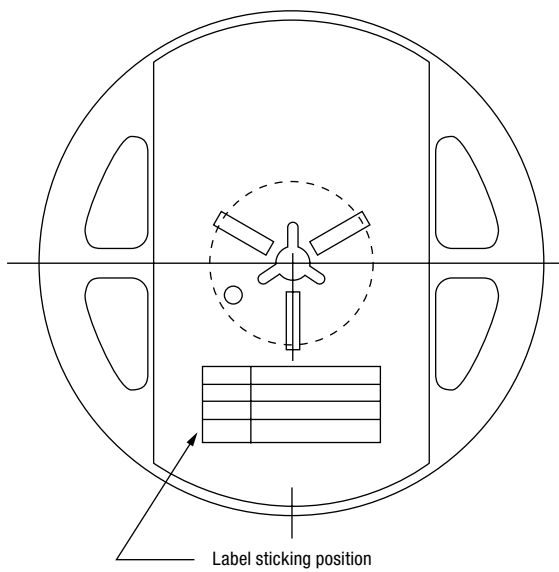
TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS



TAPE AND REEL SPECIFICATION



Dim A	Dim B	Dim C	Quantity/Reel
3.5 ± 0.1	1.88 ± 0.1	1.27 ± 0.1	3K



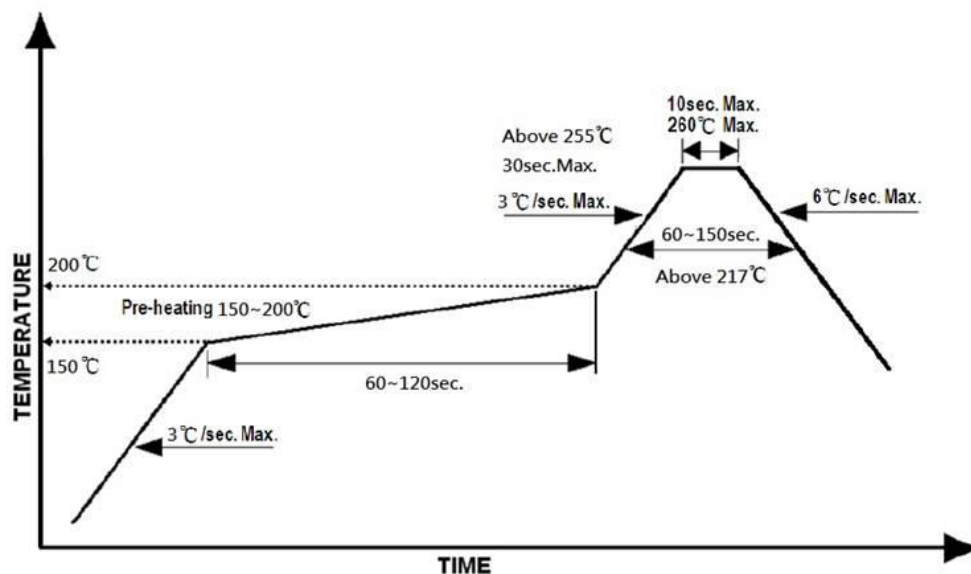
Unit: mm

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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