

NMOP-10032

NMOP-10032

880nm GaAlAs Infrared Emitter

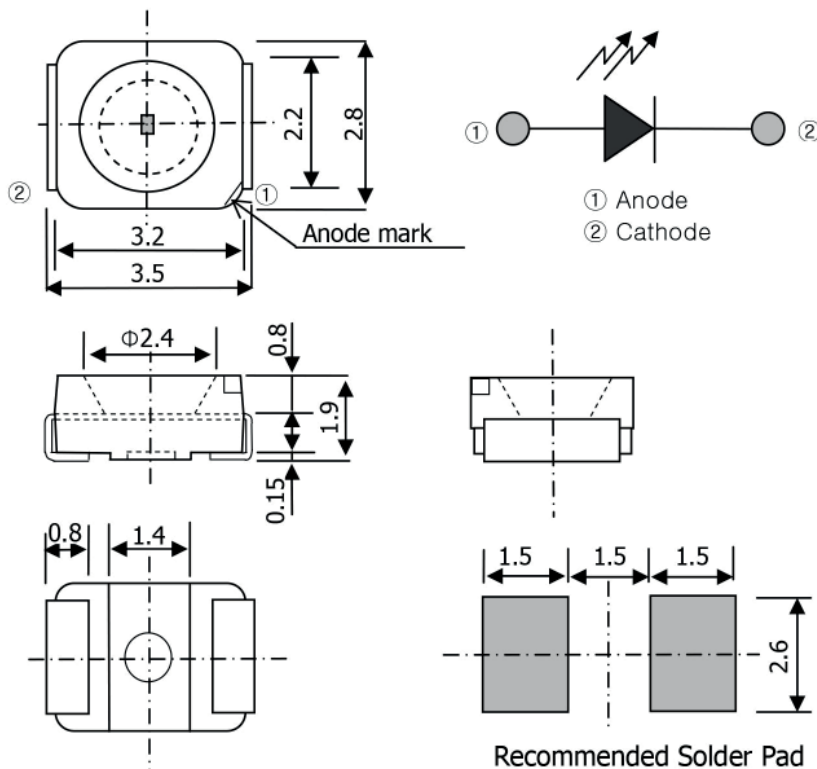
The NMOP-10032 is GaAlAs SMD TOP LED which is designed for wide viewing angle and optimized light coupling by internal reflector of white PLCC-2 package. This device is optimized for speed and efficiency at emission wavelength 880nm and has a high radiant efficiency over a wide range of forward current.

Features

- High-speed : 15 ns rise time
- 880nm wavelength
- Wide beam angle
- High power and high reliability
- Available for pulse operating
- Lead (Pb) free product

Applikations

- IR Audio and Telephone
- High speed IR communication
- IR LANs
- Available for wireless digital data transmission



- Note :**
1. All Dimensions are in millimeters
 2. Tolerance $\pm 0.2\text{mm}$
 3. Chip Off Center Tolerance $\pm 0.1\text{mm}$

NMOP-10032
MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
Power dissipation	P_D	180	mW
Forward current	I_F	100	mA
Pulse forward current ^{*1}	I_{FP}	1.5	A
Reverse voltage	V_R	5	V
Operating temperature	T_{opr}	-40~+100	°C
Storage temperature	T_{stg}	-40~+100	°C
Soldering temperature	T_{sol}	260	°C

^{*1}.Duty ratio = 1/100, pulse width=0.1ms.

ELECTRO-OPTICAL CHARACTERISTICS

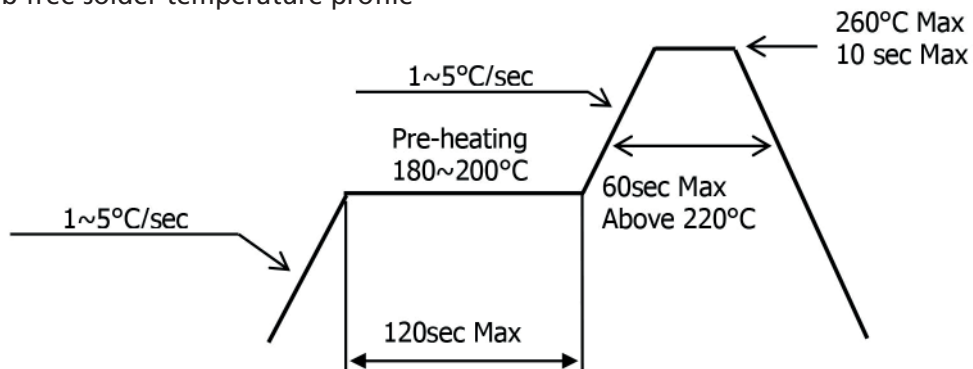
(Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=100\text{mA}$		1.6	1.9	V
Reverse current	I_R	$V_R=5\text{V}$			10	μA
Capacitance	C_t	$f=1\text{MHz}$		20		pF
Radiant flux	Φ_e	$I_F=100\text{mA}$		55		mW
Radiant Intensity	I_e	$I_F=100\text{mA}$	9	15		mW/Sr
Peak emission wavelength	λ_p	$I_F=100\text{mA}$		880		nm
Spectral bandwidth 50%	$\Delta\lambda$	$I_F=100\text{mA}$		50		nm
Half angle	$\Delta\theta$	$I_F=100\text{mA}$		± 60		deg.
Active chip area	A			0.12		mm ²
Dimensions of the active chip area	L			350x350		μm^2
Resin refraction index	n			1.52		
Optical rise & fall time(10%~90%)	tr/tf	$I_F=100\text{mA}$		15		ns

NMOP-10032

Soldering Condition

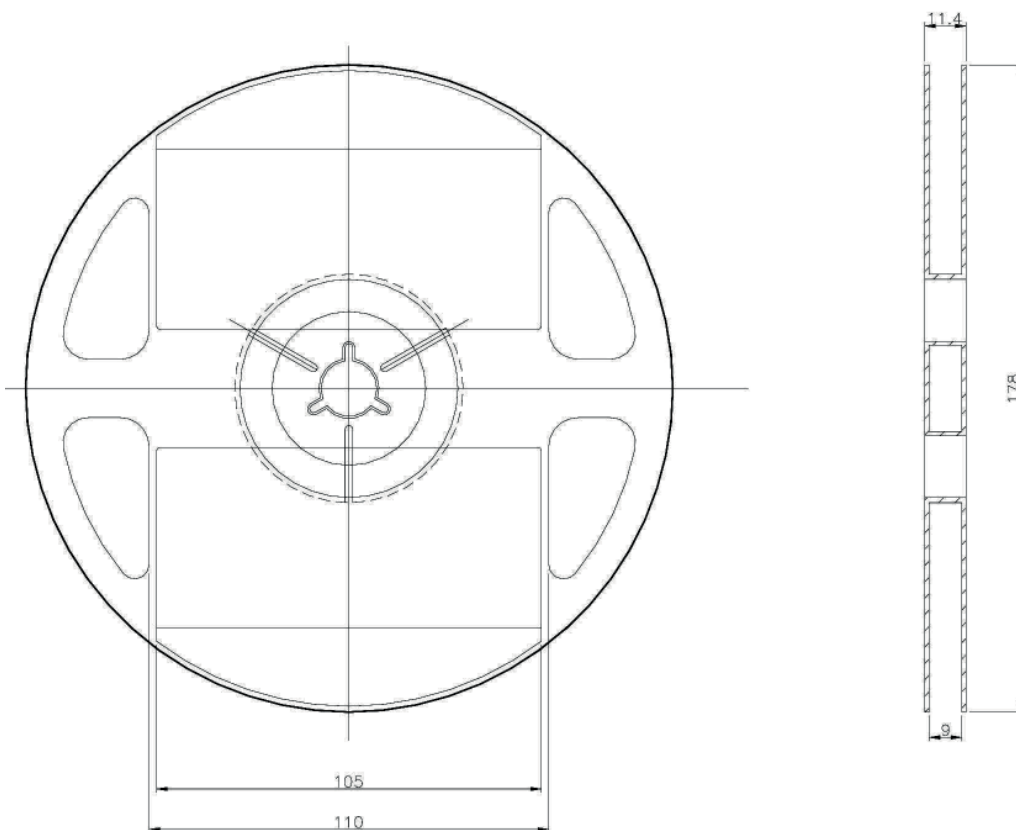
1. Pb free solder temperature profile



2. Reflow soldering should not be done more than two times.
3. When soldering, do not put stress on the LED's during heating.
4. After soldering, do not wrap the circuit board.

Reel Package Dimension (Unit : mm, Tolerance : $\pm 0.2\text{mm}$)

Quantity : 2,000pcs / Reel



NMOP-10032

Taping Drawing (Unit : mm, Tolerance : $\pm 0.2\text{mm}$)

