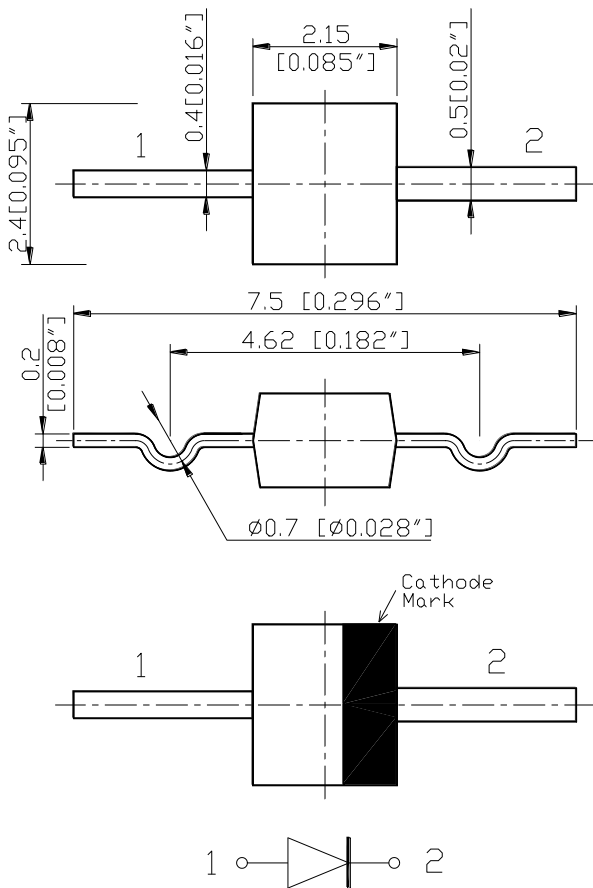


MINI TYPE LED LAMPS

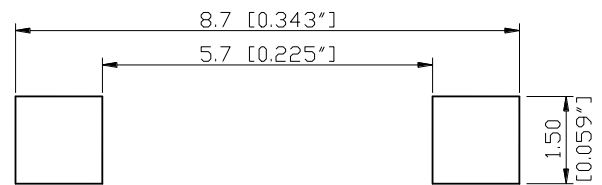
Axial Flat Top "Yoke" Lead LEDs


Part Number: N0R17S95

Package outlines



RECOMMEND PAD LAYOUT





ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

ITEM	MATERIALS
Resin (mold)	Epoxy
Lens color	Water transparent
Dice	AlGaInP/GaAs
Emitted color	Orange

Rev :	Date	Drawn by :	Checked by :	Approved by :
A	2014/08/01	唐云	許媚鳳	黃靜文

MINI TYPE LED LAMPS

Part Number: N0R17S95

Absolute maximum ratings (T_A=25°C)

Parameter	Symbol	Value	Unit
Forward current	I _f	30	mA
Reverse voltage	V _r	5	V
Power dissipation	P _d	75	mW
Operating temperature range	T _{op}	-40 ~+80	°C
Storage temperature range	T _{stg}	-40 ~+85	°C
Peak pulsing current (1/8 duty f=1kHz)	I _{fp}	125	mA

Electro-optical characteristics (T_A=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	I _f =20mA	λ _{peak}	--	630	--	nm
Spectral half bandwidth	I _f =20mA	Δλ	--	20	--	nm
Dominant wavelength	I _f =20mA	λ _{dom}	615	620	630	nm
Forward voltage	I _f =20mA	V _f	1.7	2.0	2.5	V
Luminous intensity * 1	I _f =20mA	I _v	80	120	250	mcd
Viewing angle at 50% I _v	I _f =10mA	2θ _{1/2}	--	150	--	Deg
Reverse current	V _r =5V	I _r	--	--	10	μA

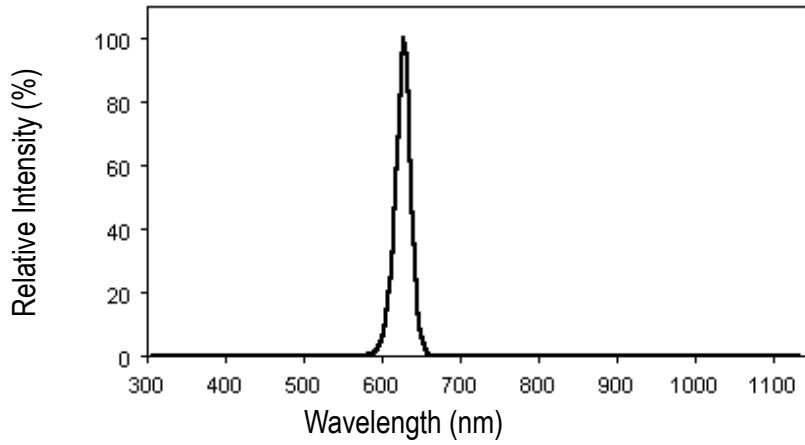
* 1 Note: Luminous intensity tolerance is ±10% .

MINI TYPE LED LAMPS

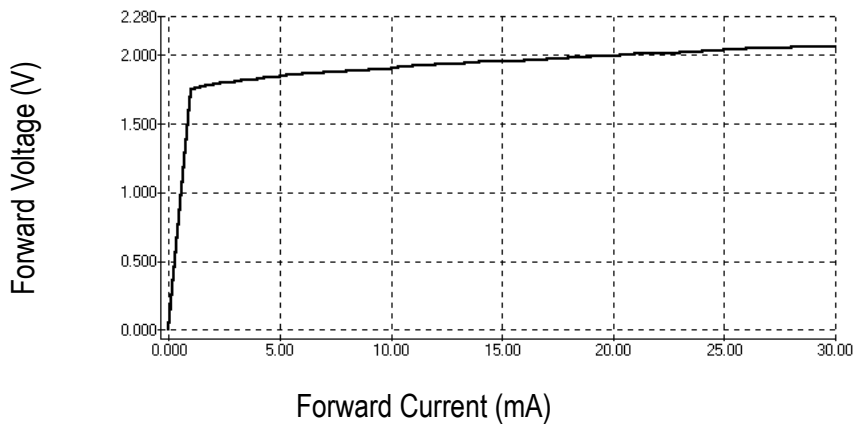
Part Number: N0R17S95

OPTICAL CHARACTERISTIC CURVES

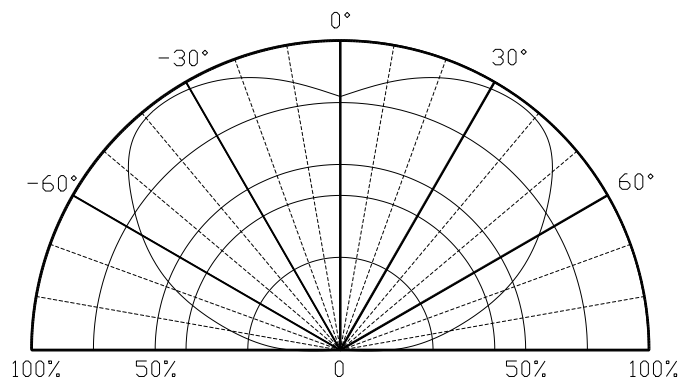
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



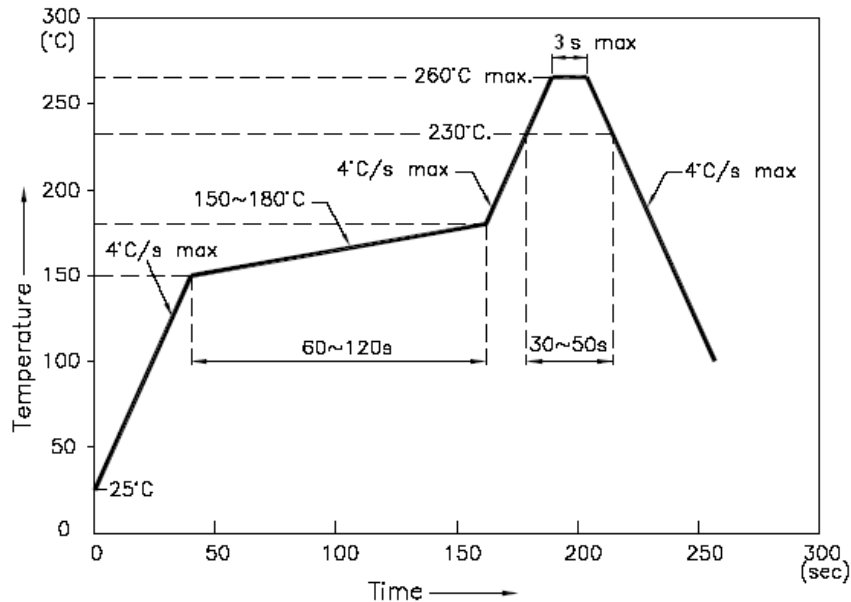
Directive Characteristics



MINI TYPE LED LAMPS

Reflow Profile

■ Reflow Temp/Time



NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■ Soldering iron

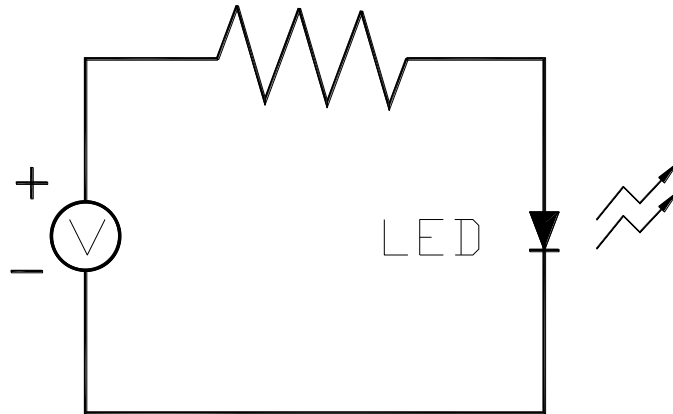
Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should

be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .

MINI TYPE LED LAMPS

Test circuit and handling precautions

■ Test circuit



■ Handling precautions

1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Shelf life in sealed bag: 12 month at 5°C~30°C and < 60% R.H;

3. After the package is Opened:

3.1. It is recommended to baking before the first use:

Baking condition:

a. $60\pm 3^{\circ}\text{C}$ x (36~48hrs) and < 5%RH, taped reel type ;

b. $110\pm 3^{\circ}\text{C}$ x (8~16hr), bulk type ;

3.2 The products should be used within a week or they should be keeping to stored at ≤ 20 R.H. with zip-lock sealed:

a. It is recommended to baking before soldering when the pack is unsealed after 72hrs ;

b. Baking condition as 3.1 baking condition.

MINI TYPE LED LAMPS

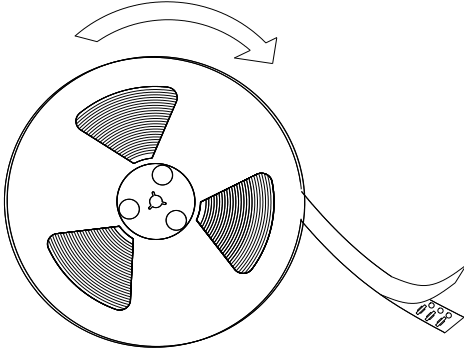
Test items and results of reliability

Type	Test Item	Test Conditions	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	-20°C 30min ↑ ↓ 80°C 30min	100 cycle	0/22
	Thermal Shock	-20°C 15min ↑ ↓ 80°C 15min	100 cycle	0/22
	High Humidity Heat Cycle	30°C ↔ 65°C 90%RH 24hrs/1cycle	10 cycle	0/22
	High Temperature Storage	T _a =80°C	1000 hrs	0/22
	Humidity Heat Storage	T _a =60°C RH=90%	1000 hrs	0/22
	Low Temperature Storage	T _a =-30°C	1000 hrs	0/22
Operation Sequence	Life Test	T _a =25°C I _F =20mA	1000 hrs	0/22
	High Humidity Heat Life Test	60°C RH=90% I _F =10mA	500 hrs	0/22
	Low Temperature Life Test	T _a =-20°C I _F =20mA	1000 hrs	0/22

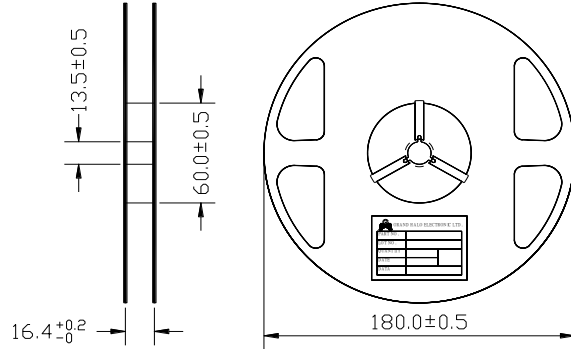
PACKAGING SPECIFICATIONS

Axial Flat Top "Yoke" Lead LED Lamps Packaging Specifications

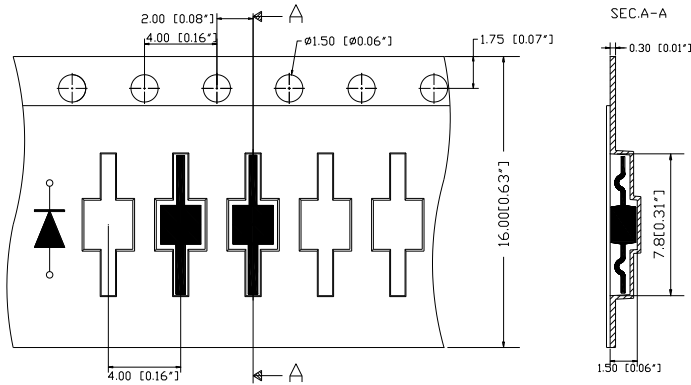
● Feeding Direction



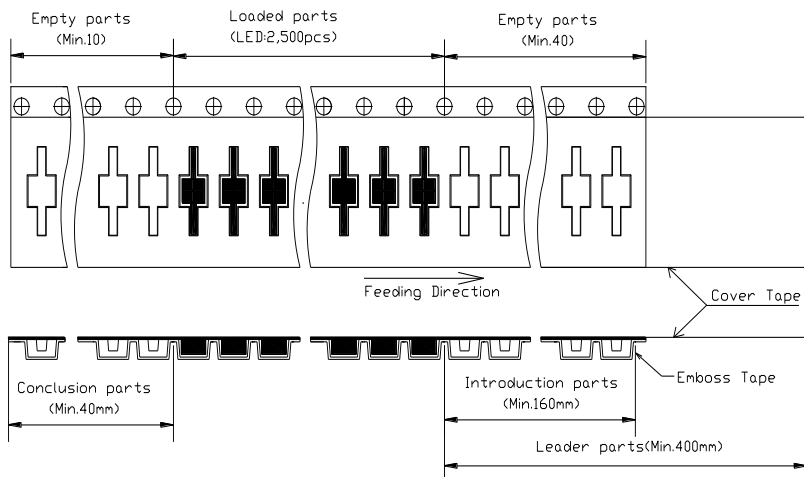
● Dimensions of Reel (Unit: mm)



● Dimensions of Tape (Unit: mm)



● Arrangement of Tape



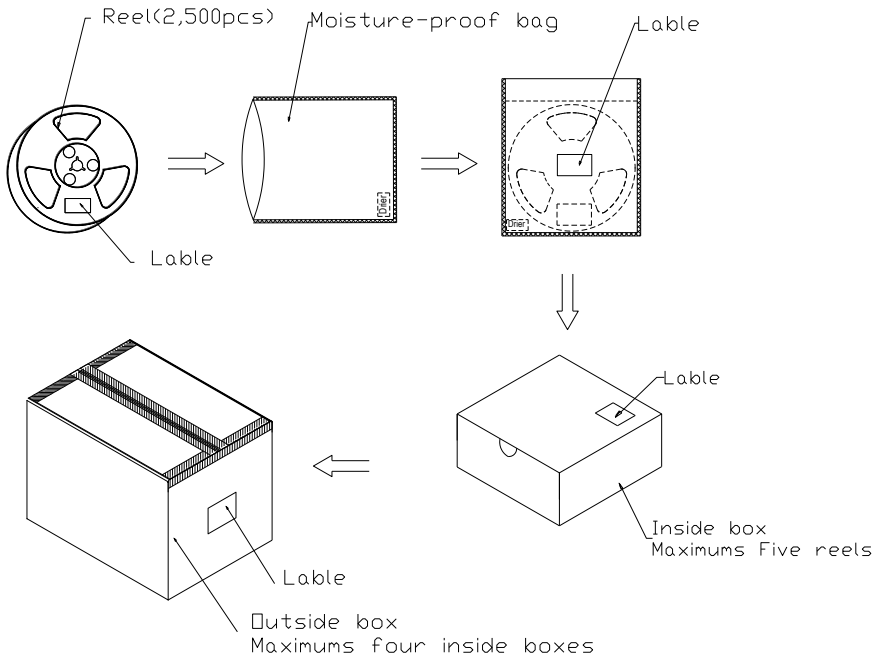
NOTES

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole;
4. 2,500 pcs/Reel

PACKAGING SPECIFICATIONS

Axial Flat Top “Yoke” Lead LED Lamps Packaging Specifications

- Packaging specifications



NOTES:

Reeled products (numbers of products are 2,500pcs) packed in a seal off moisture-proof bag along with a desiccant one by one, Five moisture-proof bag of maximums (total maximum number of products are 12,500pcs) packed in an inside box (size: about 238mm x about 194mm x about 102mm) and four inside boxes of maximums are put in the outside box (size: about 410mm x about 254mm x about 229mm) Together with buffer material, and it is packed. (Part No., Lot No., quantity should appear on the label on the moisture-proof bag, part No. And quantity should appear on the label on the cardboard box.) The number of the loading steps of outside box (cardboard box) has it to three steps.