



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : Q196R4-G

Package 1.6*0.6*1.2 mm Top LEDs

Features :

- Lens Molding
- Compatible with automatic placement equipment
- Compatible with reflow solder process

Applications :

- Indicators
- Automotive : backlighting in dashboard and switch
- Backlight for LCD

Dice material	Emitted color	Lens Color
AlGaInP/GaAs	Red	Water transparent

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	IF=20mA	λ peak		630		nm
Dominant wavelength	IF=20mA	λ D	615	623	630	nm
Forward voltage	IF=20mA	VF	1.7	2.0	2.5	V
Luminous intensity	IF=20mA	Iv	50	95	160	mcd
Viewing angle at 50% Iv	IF=20mA	2 θ 1/2		140		Deg
Reverse current	VR=5V	IR			10	μ A

Absolute Maximum Ratings(Ta=25°C)

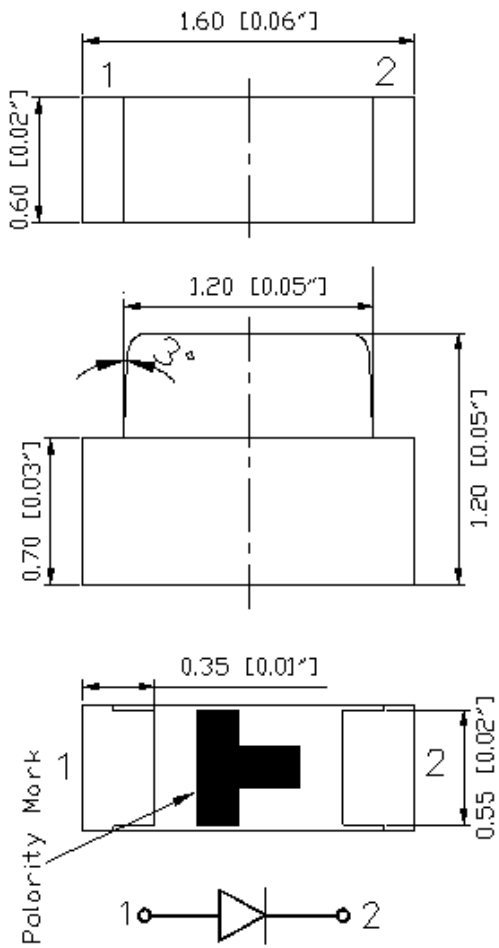
Parameter	Symbol	Value	Unit
Power dissipation	Pd	75	mW
Forward current	IF	30	mA
Reverse voltage	VR	5	V
Operating temperature range	Top	-40 ~+80	°C
Storage temperature range	Tstg	-40 ~+85	°C
Peak pulsing current (1/8 duty f=1kHz)	I _{fp}	125	mA

2016FEB19Y

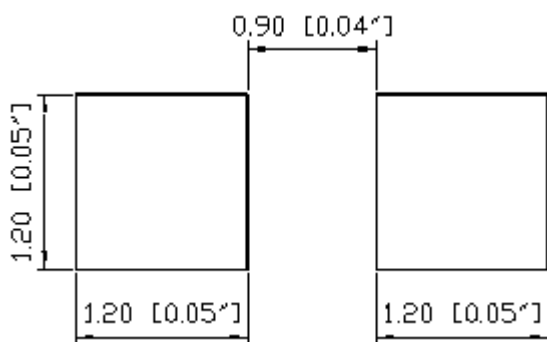


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PACKAGING DIMENSIONS



RECOMMEND PAD LAYOUT





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Typical Electro-Optical Characteristics Curve:

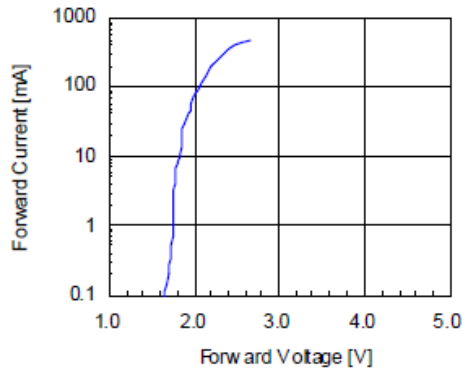


Fig 3. Forward Voltage vs. Temperature

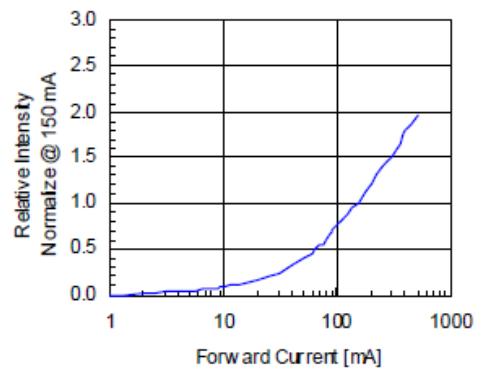


Fig 4. Relative Intensity vs. Temperature

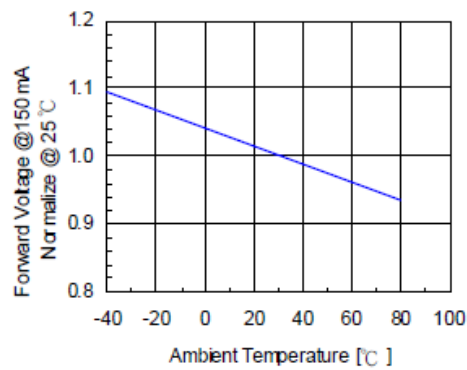
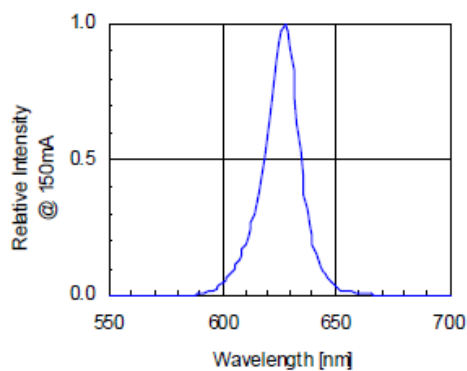
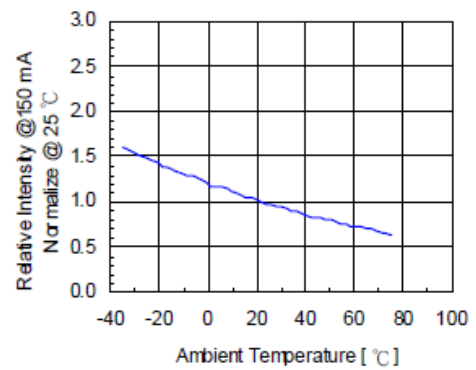


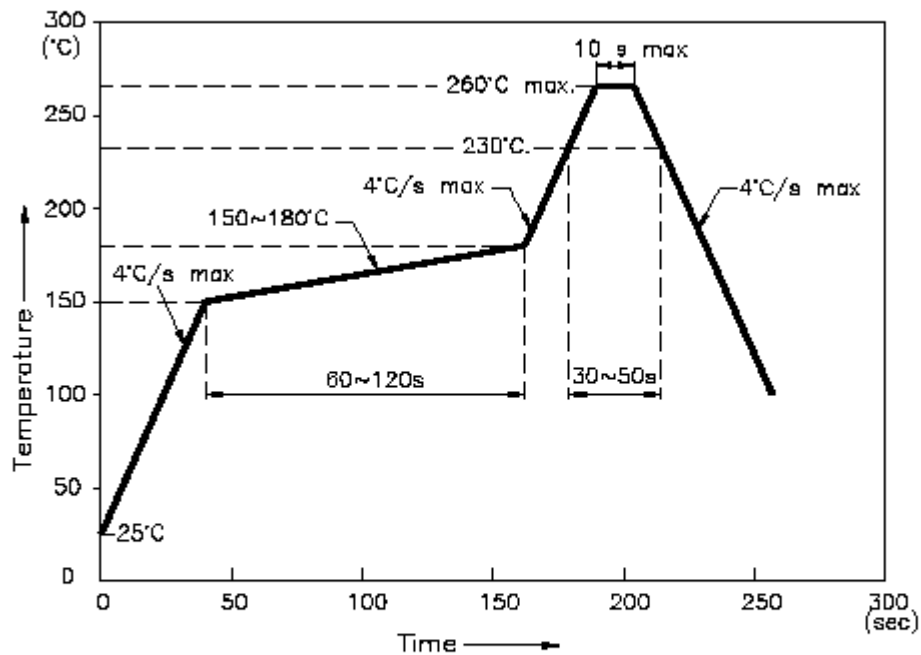
Fig 5. Relative Intensity vs. Wavelength





Soldering Profile

Reflow Soldering Profile For Lead-free SMT Process.



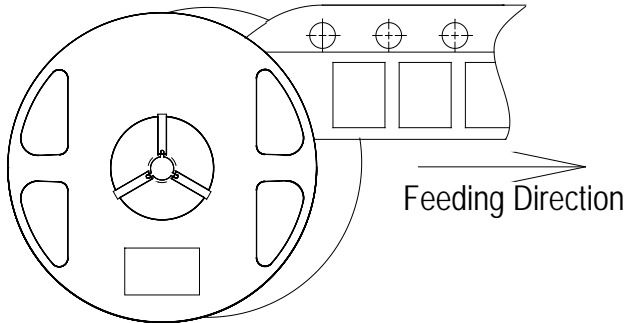
NOTES:

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. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

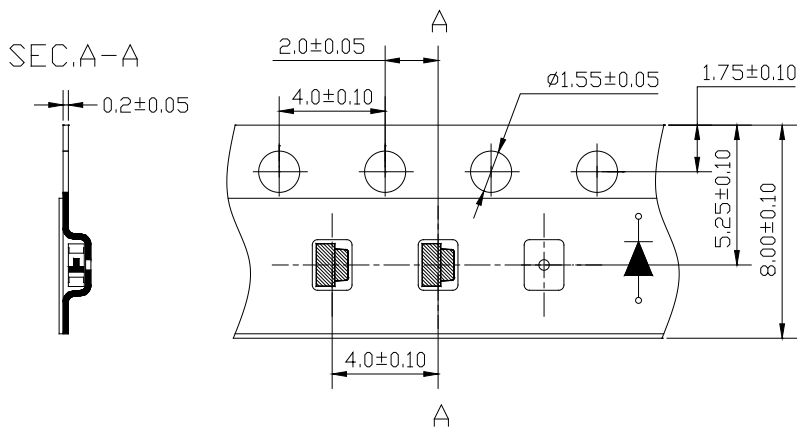


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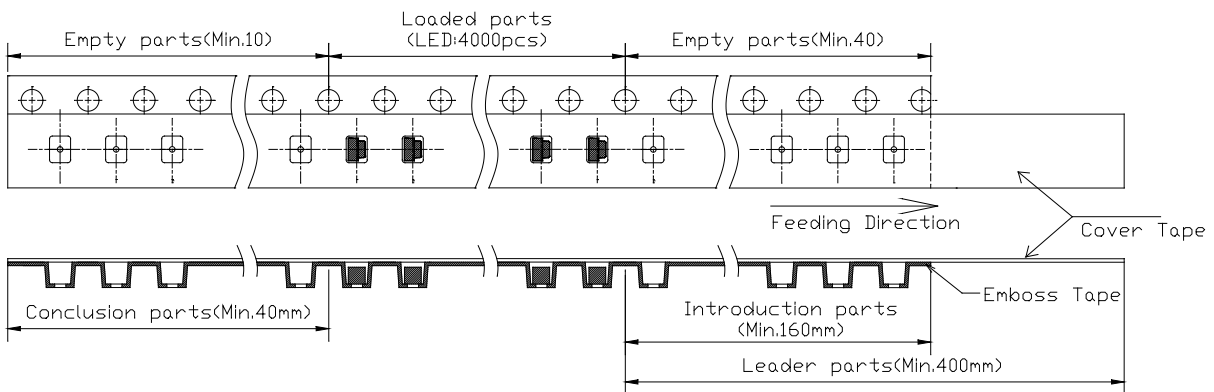
■Feeding Direction



■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. 4,000pcs/Reel