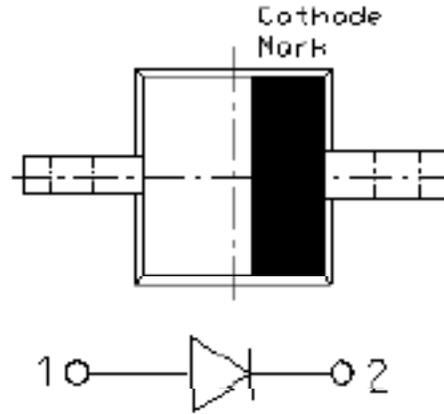
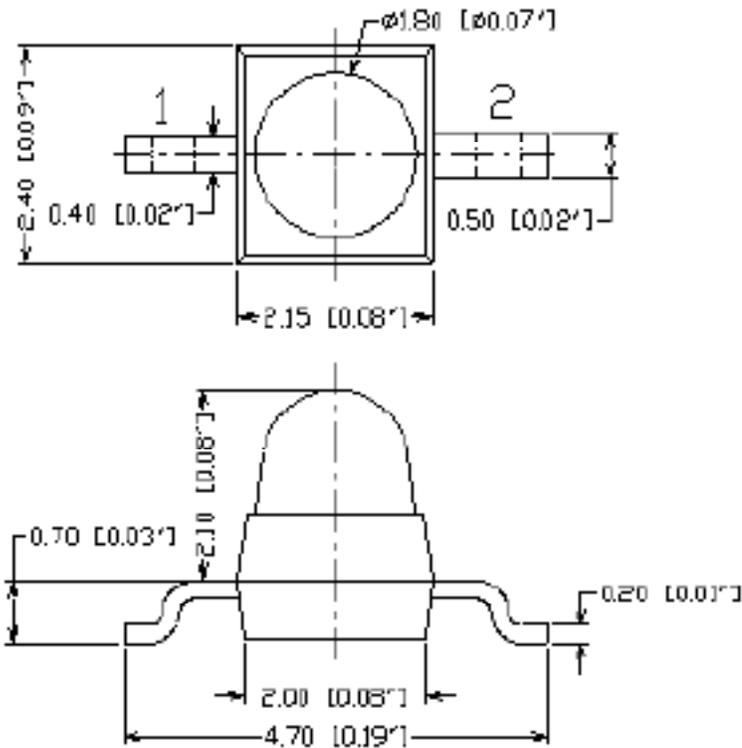
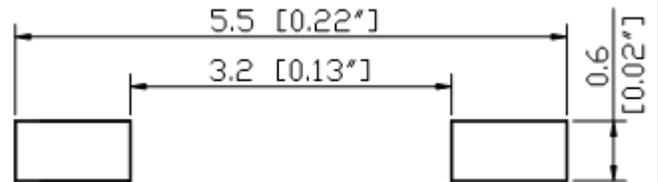


**SPECIFICATION** **CSM28Y2CG**
**PACKAGE OUTLINES**

**RECOMMENDED PAD LAYOUT**

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSM28Y2CG	InGaAlP	Yellow	Water Clear	20°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Forward Current	I <sub>F</sub>	30	mA
Reverse Current @ 5V	I <sub>R</sub>	10	μA
Power Dissipation	P <sub>d</sub>	75	mW
Operating Temperature Range	T <sub>OP</sub>	-40~+80	°C
Storage Temperature Range	T <sub>STG</sub>	-40~+85	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I <sub>FP</sub>	125	mA
Soldering Temperature	T <sub>SOL</sub>	Max 260°C for 5 sec Max	

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

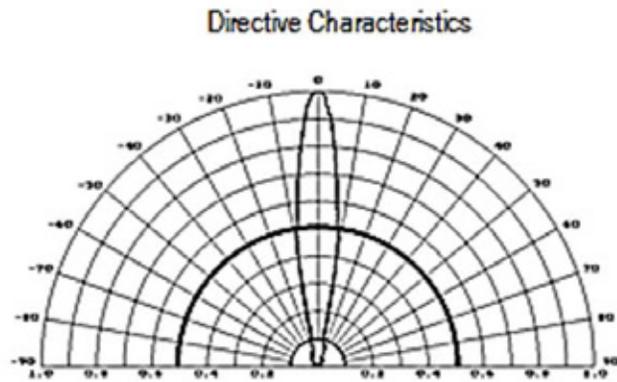
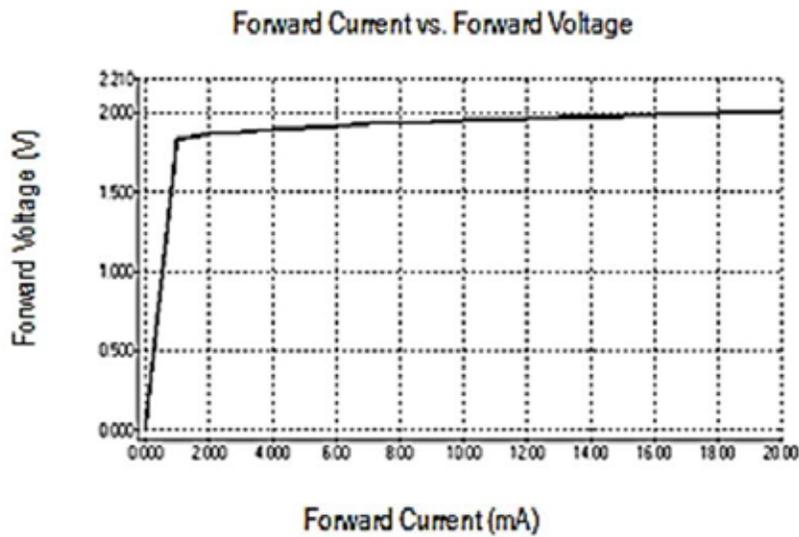
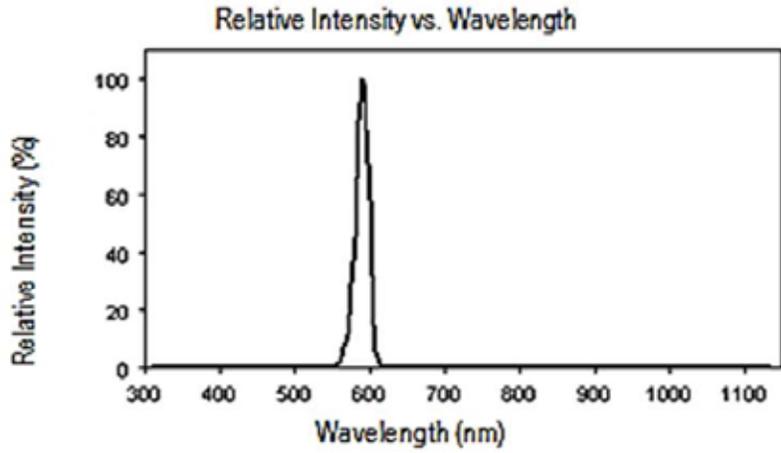
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 20mA	1600	2600	-	mcd
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	-	2.0	2.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 5V	-	-	10	μA
Viewing Angle at 50% I <sub>v</sub>	2θ <sub>1/2</sub>	I <sub>F</sub> = 10mA	-	20	-	Deg
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> = 20mA	-	590	-	nm
Dominant Wavelength	λ <sub>D</sub>	I <sub>F</sub> = 20mA	585	590	595	nm

\*Tolerance of viewing angle: -10 / +5 deg.



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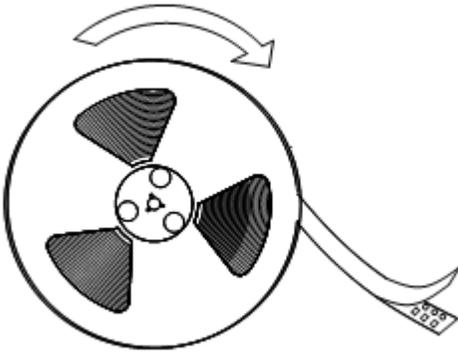
**OPTICAL CHARACTERISTIC CURVES**



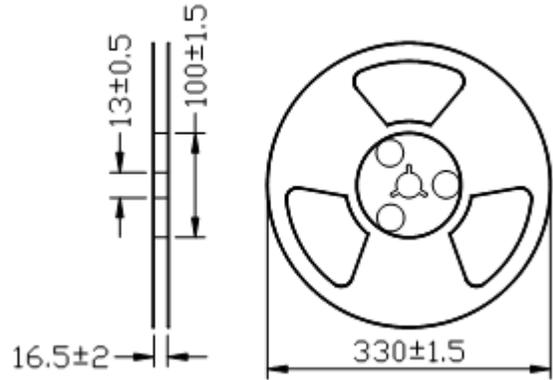
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## PACKAGING SPECIFICATION

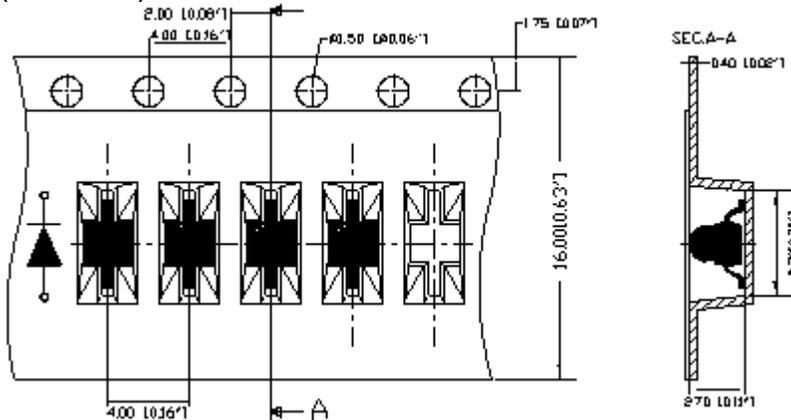
Feeding Direction



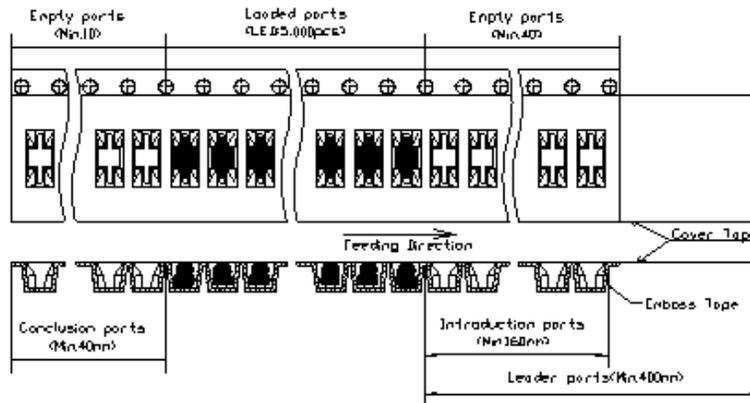
Dimensions of Reel (Unit: mm)



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 lamp is two;
3. The cathode is oriented towards the tape sprocket hole;
4. 1,000 pcs/Reel

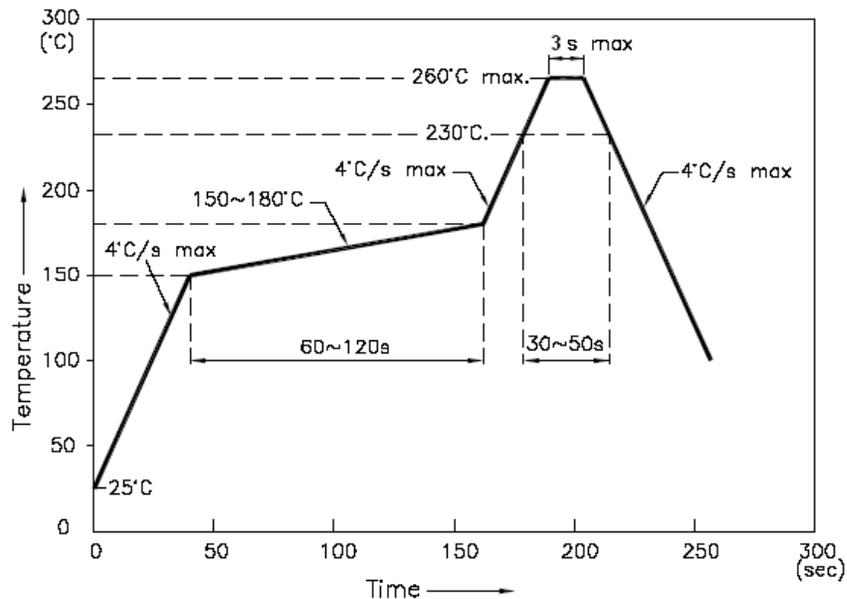


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## SOLDERING CONDITIONS

### REFLOW PROFILE

- Reflow Temp/Time



Notes:

- We recommend the reflow temperature 245°C ( $\pm 5^\circ\text{C}$ ). The maximum soldering temperature should be limited to 260°C.
- Don't cause stress to the epoxy resin while it is exposed to high temperature.
- Number of reflow process should be 2 times or less.

- Soldering Iron

Basic spec is  $\leq 5$  sec when 260°C. If temperature is higher, time should be shorter ( $\pm 10^\circ\text{C} \rightarrow -1$ sec). Power dissipation of iron should be smaller than 20W and temperature should be controllable. Surface temperature of the device should be under 230°C.



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