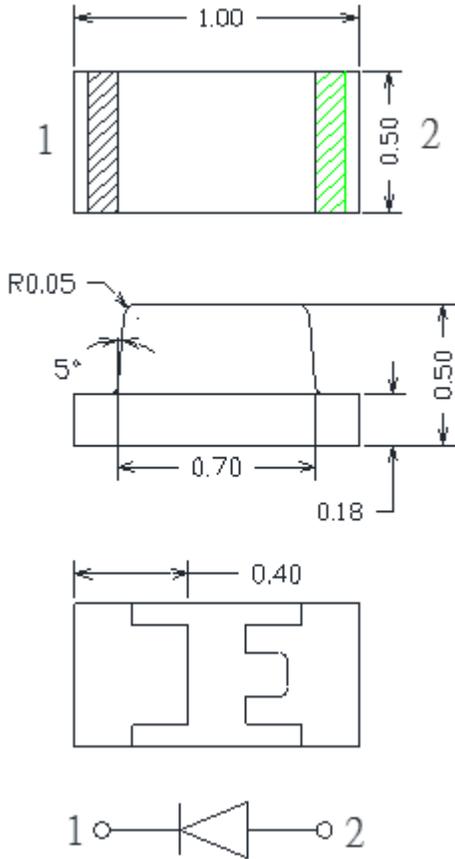
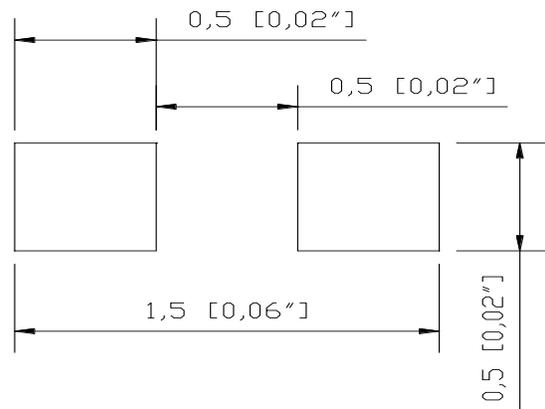


SPECIFICATION **CS42C-QL4**
PACKAGE OUTLINES

RECOMMEND PAD LAYOUT


Item	Material
Resin(Mold)	Epoxy
Lens Color	Water Transparent
Dice	AlGaInP/GaAs
Emitted Color	Yellow

- 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
CS42C-QL4	InGaAlP	Yellow	Water Clear	140°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	I _F	30	mA
Reverse Current @ 5V	I _R	10	μA
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 (1/10 duty f = 10KHz)	I _{FP}	125	mA
Soldering Temperature	T _{SOL}	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 _v	I _F = 20mA	40	115	-	mcd
Forward Voltage	V _F	I _F = 20mA	-	2.0	2.5	V
Reverse Leakage Current	I _R	V _R = 5V	-	10	-	μA
Viewing Angle at 50% I _v	2θ _{1/2}	I _F = 20mA	-	140	-	Deg
Peak Wavelength	λ _P	I _F = 20mA	-	590	-	nm
Dominant Wavelength	λ _D	I _F = 20mA	585	590	595	nm

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

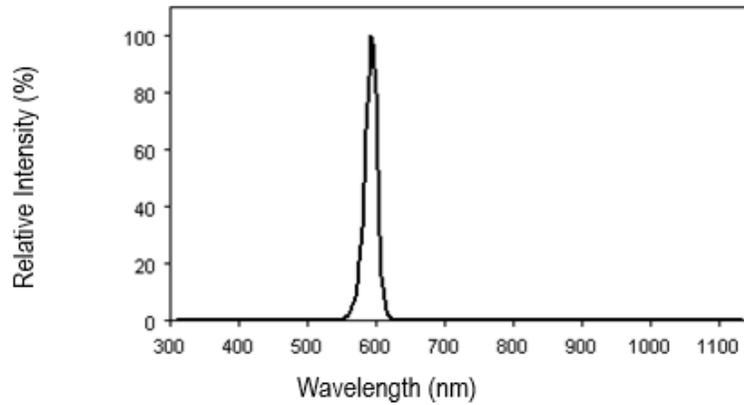


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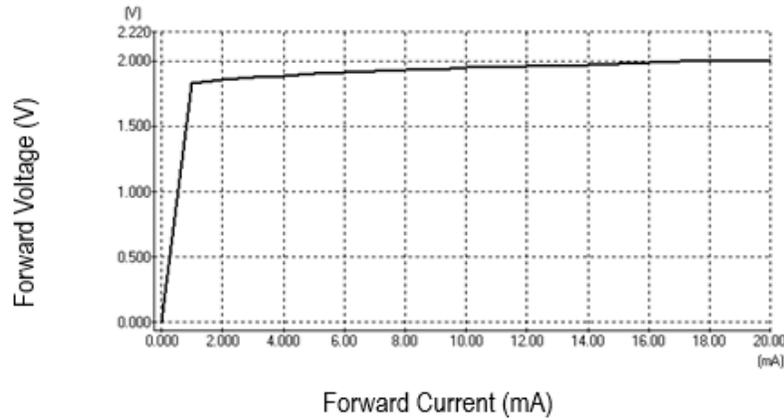
OPTICAL CHARACTERISTIC CURVES

OPTICAL CHARACTERISTIC CURVES

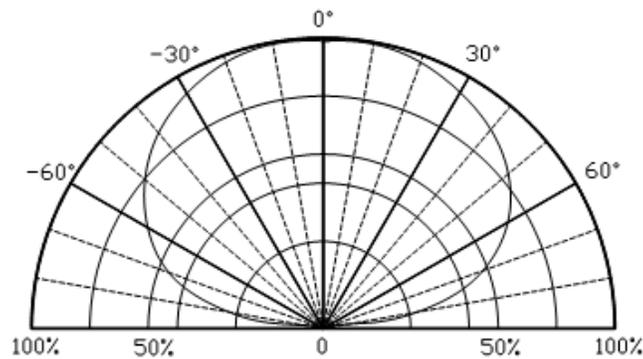
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



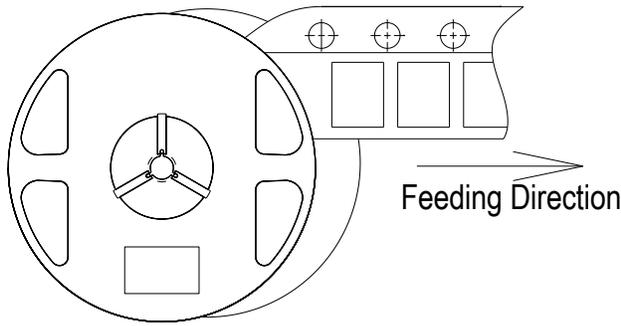
Directive Characteristics



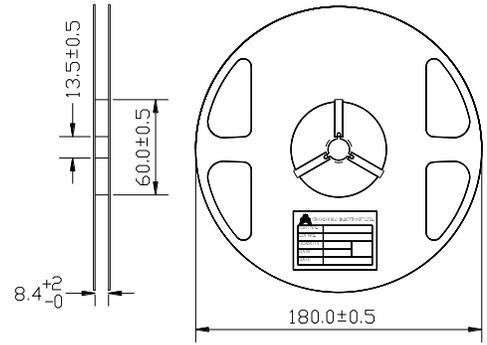
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PACKAGING SPECIFICATION

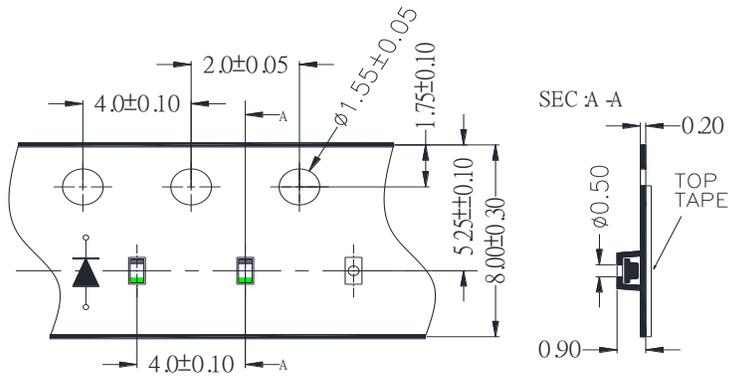
- Feeding Direction



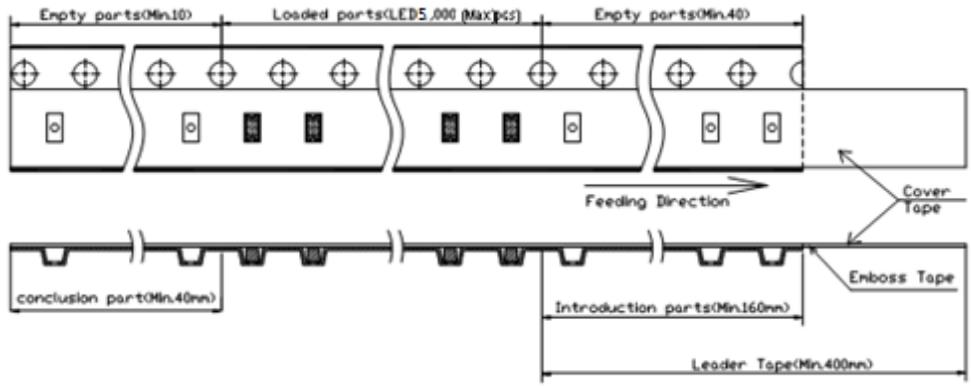
- Dimensions of Reel (Unit: mm)



- Dimensions of Tape (Unit: mm)



- Arrangement of Tape



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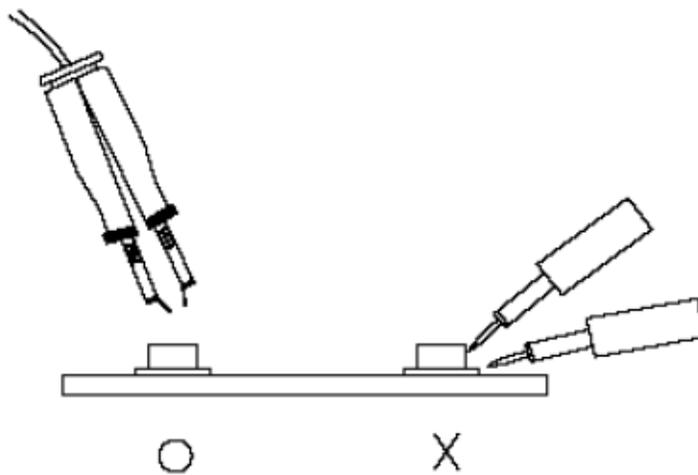
SOLDERING CONDITIONS

SOLDERING CONDITION

- When soldering for lamp without stopper type, a minimum of 3mm clearance from the base of the lens to the soldering point must be observed.
- To avoid the epoxy climb to the lead frame and impact to non-soldering problem, dipping the lens into the solder must be avoided.
- Do not apply any external stress to the lead frame during soldering while the LED is at high temperature.
- Recommended soldering condition

Soldering Iron		Wave Soldering	
Temperature	300°C Max.	Pre-heat	100°C Max.
Soldering Time	3 sec. Max. (one time only)	Pre-heat Time	60 sec. Max.
		Solder Wave	260°C Max.
		Soldering Time	5 sec. Max.

- Excessive soldering temperature and/or time might result in deformation of the LED lens or catastrophic failure of the LED.
- Soldering Iron: each terminal is to go to the tip of the soldering iron temperature less than 260 °C for 5 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals and solder each terminal. Be careful because the damage of the product is often started at the time of the hand solder.
- Repairing: repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



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