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| Spec. No. | PS-ND-0807 |
| Rev. | A |

PRODUCT SPECIFICATION

Model No : CSS-312B7/313B7

Descriptions:

- 0.30 Inch Single Digit Display
- Emitting Color : Super Bright Blue



| CUSTOMER APPROVED | APPROVED BY | CHECKED BY | PREPARED BY |
|-------------------|-------------|------------|-------------|
| SIGNATURES | | | 陳新強 |
| | | | |

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Model No: CSS-312B7/313B7

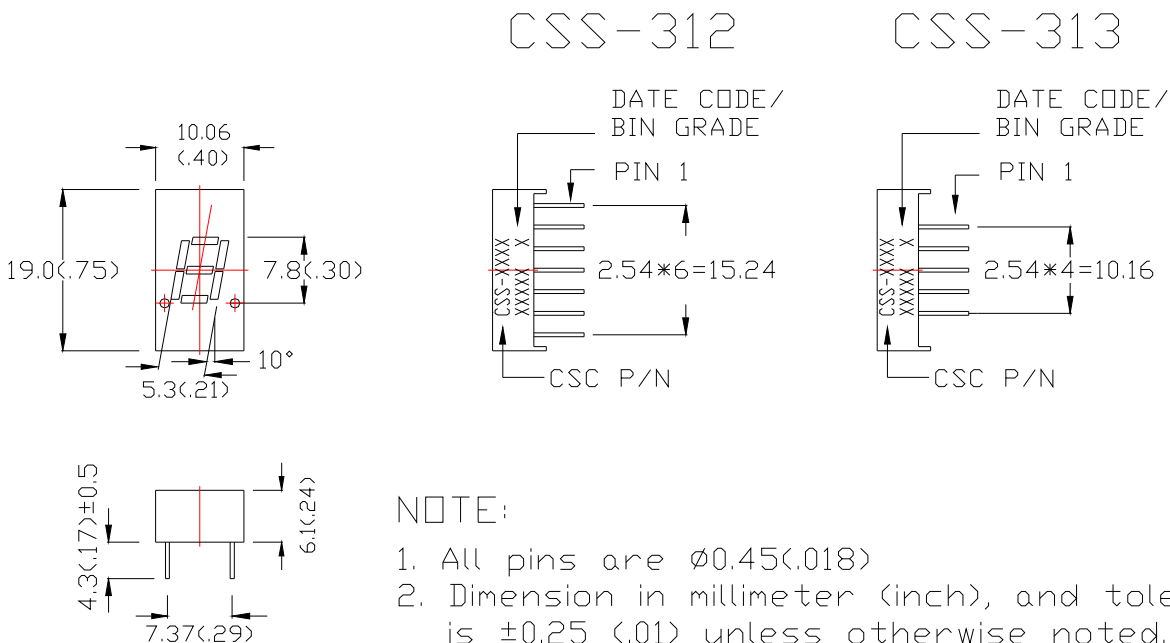
■ **Features -**

1. 0.30 inch (7.8mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. ESD>1KV(HBM)
6. Easy mounting on P.C. board or socket.

■ **Device Selection Guide -**

| Model No. | Chip | | Description |
|------------------|--------------|--------------------------|-----------------------|
| | Material | Emitted Color | |
| CSS-312B7 | InGaN | Super Bright Blue | Common Anode |
| CSS-313B7 | InGaN | Super Bright Blue | Common Cathode |

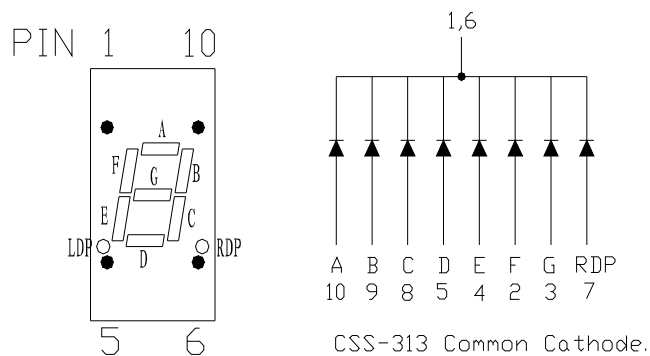
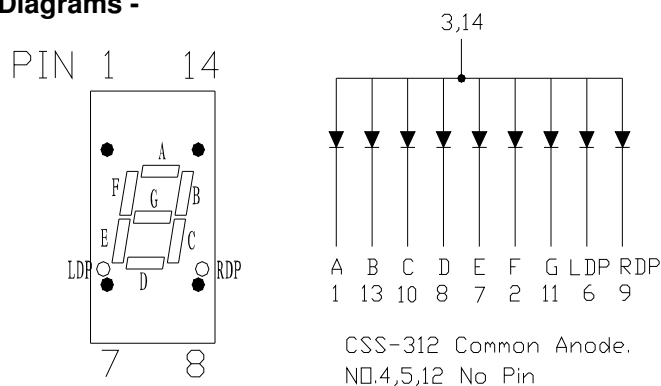
■ **Mechanical Dimensions -**





Model No : CSS-312B7/313B7

Internal Circuit Diagrams -



Absolute Maximum Rating -

(Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|--|--------|-----------|-------|
| Power Dissipation Per Dice | Pd | 120 | mW |
| Continuous Forward Current Per Dice | IAF | 30 | mA |
| Peak Current Per Dice | IPF | 100 | mA |
| Derating Linear From 25°C Per Dice | - | 0.4 | mA/°C |
| Reverse Voltage Per Dice | VR | 5 | V |
| Operating Temperature | Topr | -35 ~ +85 | °C |
| Storage Temperature | Tstg | -35 ~ +85 | °C |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260 °C | | | |



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■ Electro-optical Characteristics -

(Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|-----------------------------------|------------------|------|-------|------|------|----------------------|
| Forward Voltage Per Segment | V _F | - | 3.5 | 4 | V | I _F =20mA |
| Luminous Intensity Per Segment | I _v | 6400 | 16000 | - | ucd | I _F =10mA |
| Peak Emission Wavelength | λ _P | - | 468 | - | nm | I _F =20mA |
| Dominant Wavelength | λ _d | - | 470 | - | nm | I _F =20mA |
| Spectrum Radiation Bandwidth | Δλ | - | 20 | - | nm | I _F =20mA |
| Reverse Current | I _R | - | - | 100 | μA | V _R =5V |
| Luminous Intensity Matching Ratio | I _{V-m} | - | - | 2:1 | - | I _F =10mA |



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Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

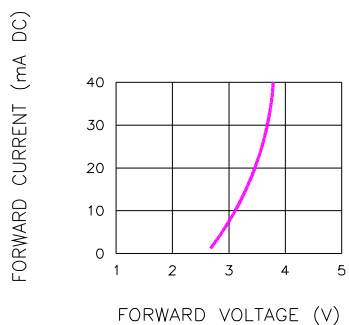


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

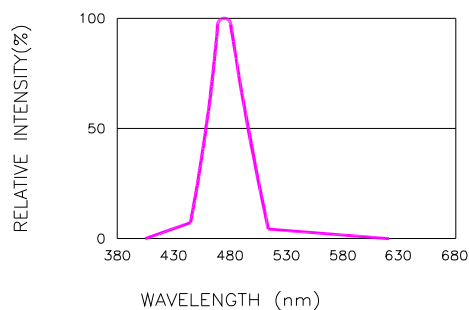


Fig.2 RELATIVE INTENSITY VS. WAVELENGTH

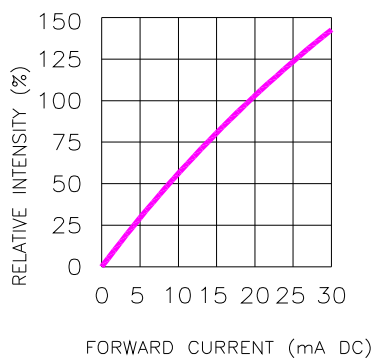


Fig.3 RELATIVE INTENSITY VS. FORWARD CURRENT

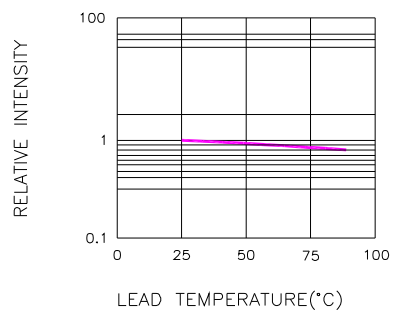


Fig.4 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

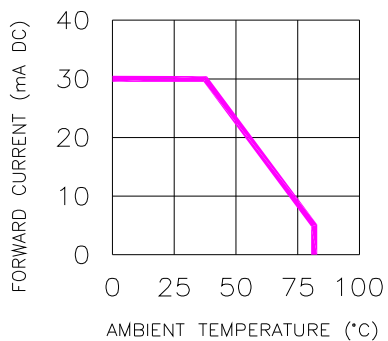


Fig.5 FORWARD CURRENT VS. AMBIENT TEMPERATURE

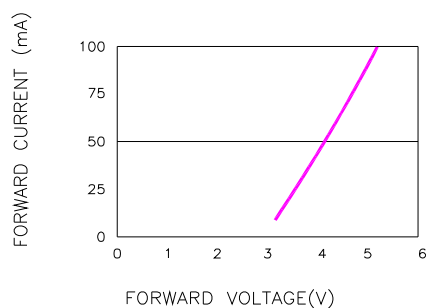


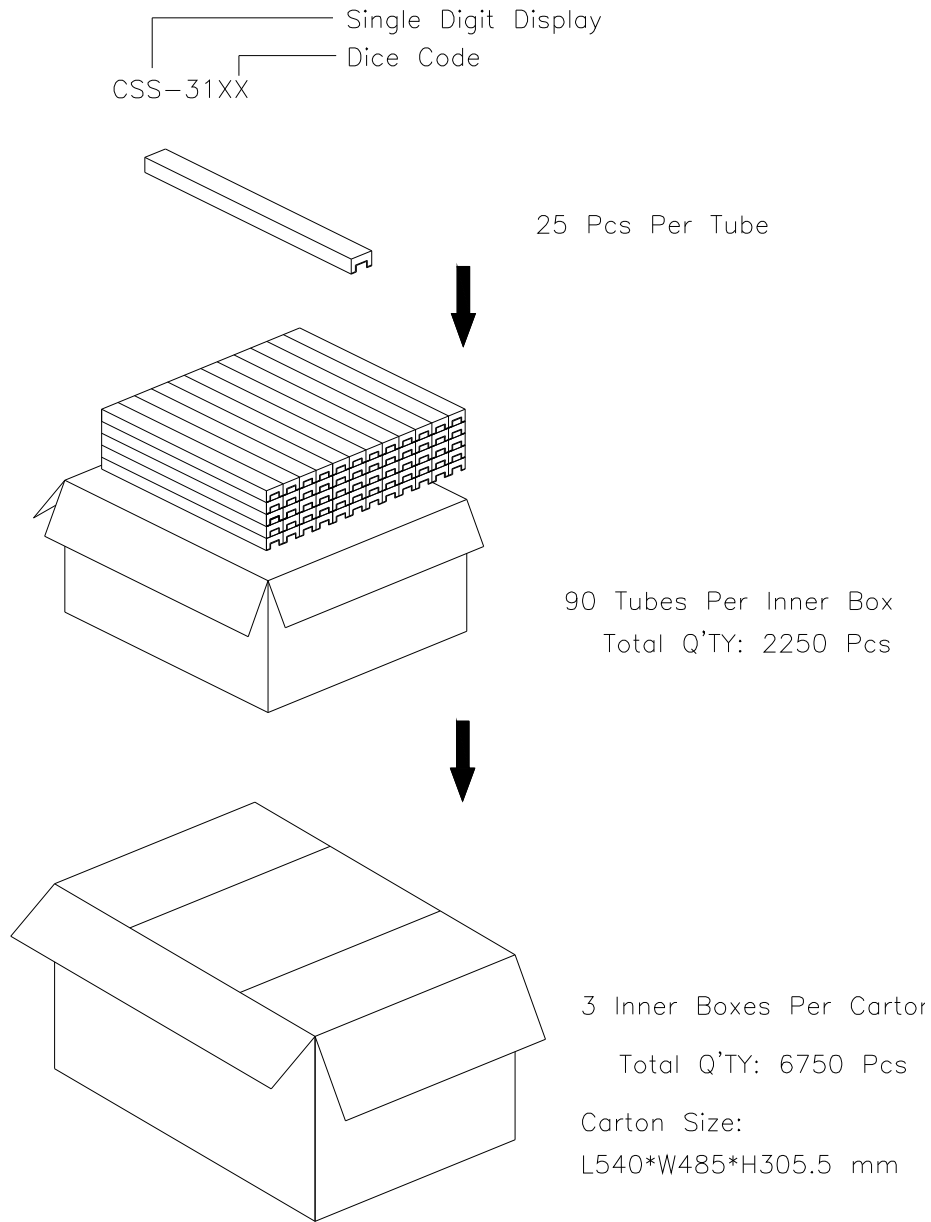
Fig.6 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)



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■ Package Dimensions



Note: The specifications are subject to change without notice. Please contact us for updated information.
<http://www.csctw.com.tw>