



<b>Spec. No.</b>	PS-DD-S20240/S20241B7
<b>Rev.</b>	A

# PRODUCT SPECIFICATION

**Model No:CSD-S20240B7/S20241B7**

Descriptions:
<ul style="list-style-type: none"> <li>■ 0.2 Inch Dual Digit SMD Display</li> <li>■ Emitting Color : Super Bright Blue</li> </ul>



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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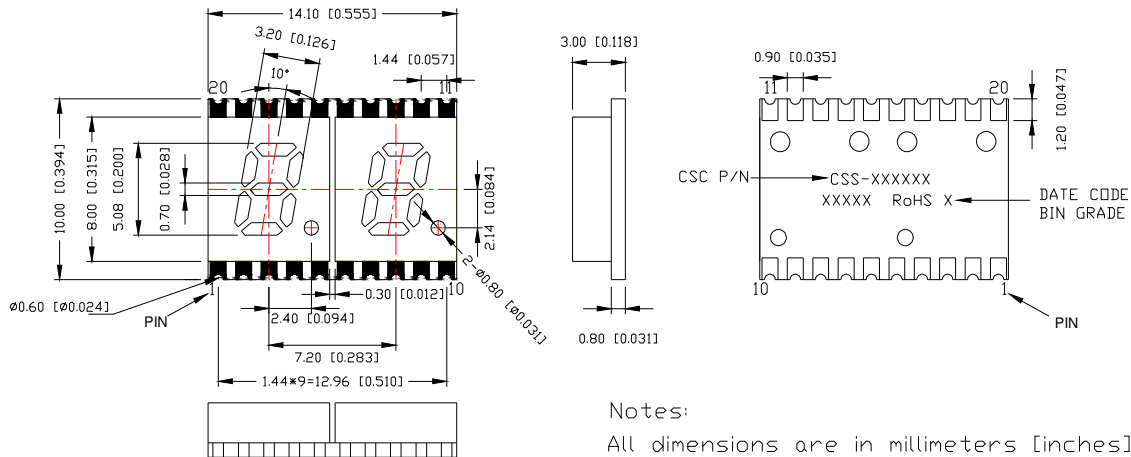
**Features -**

1. 0.2 inch (5.08mm) digit height.
2. Qualified according to JEDEC moisture sensitivity Level 2a.
3. RoHS compliant.
4. Low power consumption.
5. ESD > 1KV(HBM).
6. Easy mounting on P.C. board.

**Device Selection Guide -**

Model No.	Chip		Description
	Material	Emitting Color	
CSD-S20240B7	InGaN	Super Bright Blue	Common Anode
CSD-S20241B7	InGaN	Super Bright Blue	Common Cathode

**Mechanical Dimensions -**



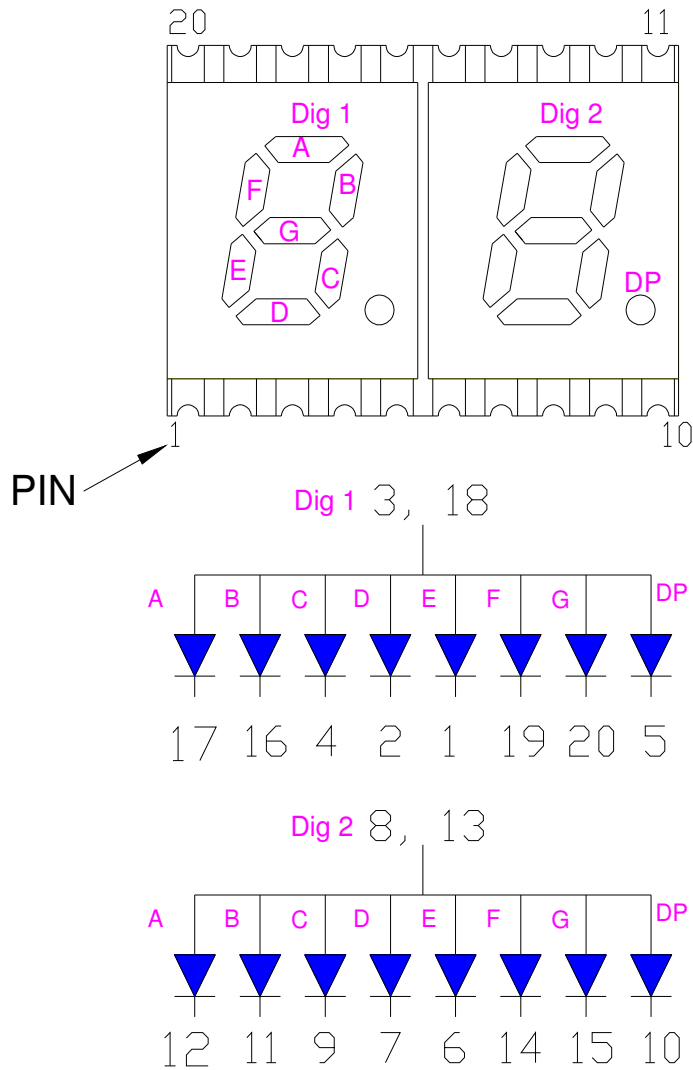
Notes:  
All dimensions are in millimeters [inches],  
and tolerance is ±0.25 [0.010]  
unless otherwise noted.



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**Internal Circuit Diagrams -**



CSD-S20240 Common Anode  
(CSD-S20241 Common Cathode)


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**■ Absolute Maximum Rating -**

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>P<sub>AD</sub></b>	120	mW
Continuous Forward Current Per Dice	<b>I<sub>AF</sub></b>	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	<b>I<sub>PF</sub></b>	100	mA
Derating Linear From 25°C Per Dice	-	0.4	mA/°C
Reverse Voltage Per Dice	<b>V<sub>R</sub></b>	5	V
Operating Temp.	<b>T<sub>opr</sub></b>	-40 ~ +105	°C
Storage Temp.	<b>T<sub>stg</sub></b>	-40 ~ +105	°C

**Note:Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C**
**■ Electro-optical Characteristics -**

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	<b>V<sub>F</sub></b>	-	3.5	4	V	IF=20mA
Luminous Intensity Per Segment	<b>I<sub>v</sub></b>	2500	6000	-	ucd	IF=10mA
Dominant Wavelength	$\lambda_d$	-	470	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	IF=20mA
Reverse Current	<b>I<sub>R</sub></b>	-	-	50	$\mu$ A	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	<b>IV-m</b>	-	-	2:1	-	IF=10mA



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**Typical Electrical / Optical Characteristics Curves -**

( $T_a = 25^\circ\text{C}$  Unless Otherwise Noted)

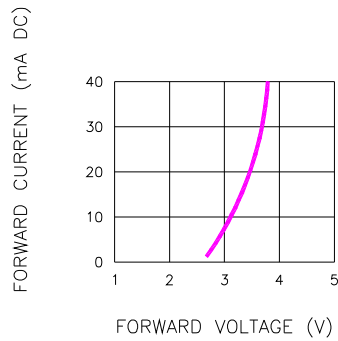


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

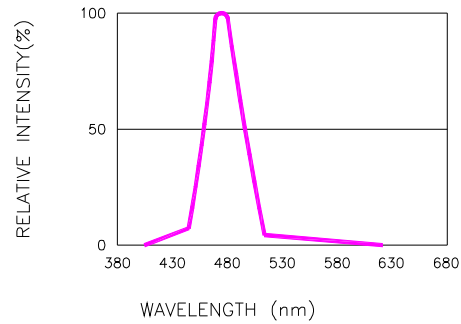


Fig.2 RELATIVE INTENSITY VS. WAVELENGTH

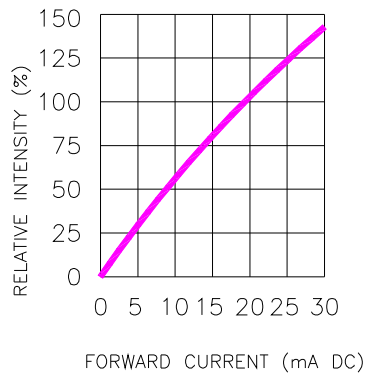


Fig.3 RELATIVE INTENSITY VS. FORWARD CURRENT

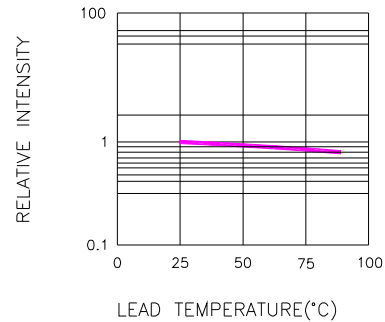


Fig.4 RELATIVE INTENSITY VS. LEAD TEMPERATURE  
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

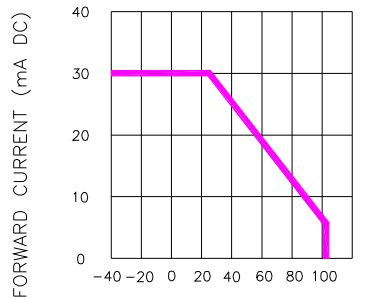


Fig.5 FORWARD CURRENT VS. AMBIENT TEMPERATURE

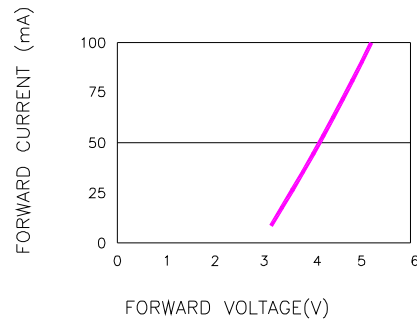


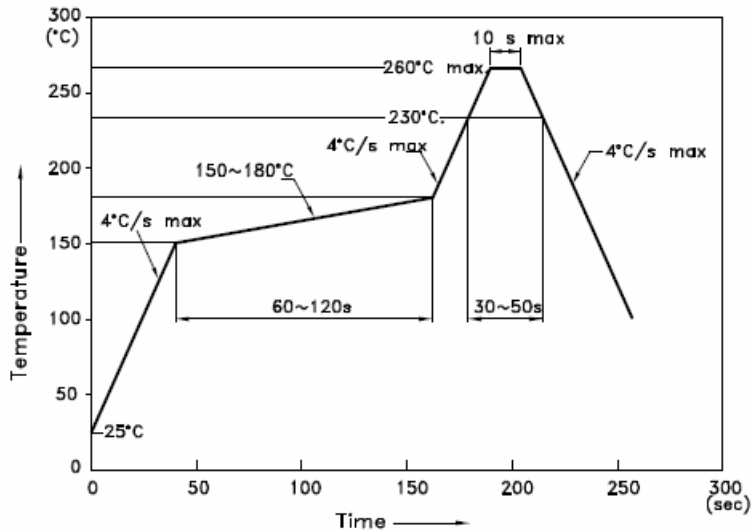
Fig.6 PEAK FORWARD VOLTAGE VS. FORWARD(100us TEST PULSE, 1% DUTY CYCLE)



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## SMT REFLOW SOLDERING INSTRUCTIONS

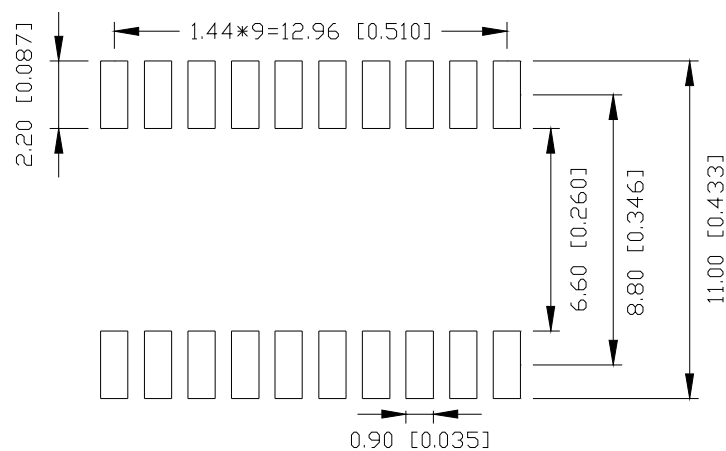
### IR Reflow Temperature / Time :



#### NOTES:

1. We recommend the reflow temperature 245°C(+/-5°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.

### Soldering Pad Size

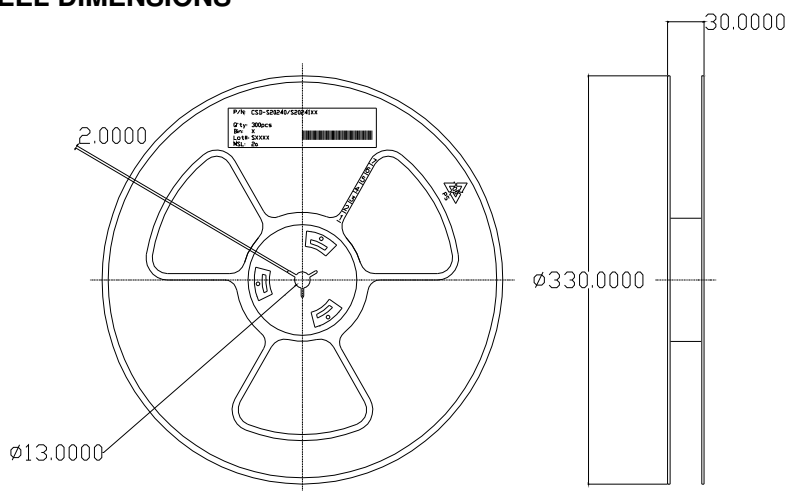




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**REEL DIMENSIONS**



**PACKING & LABEL SPECIFICATIONS**

