



Spec. No.	PS-DD-S20240/S20241S
Rev.	A

PRODUCT SPECIFICATION

Model No:CSD-S20240S/S20241S

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



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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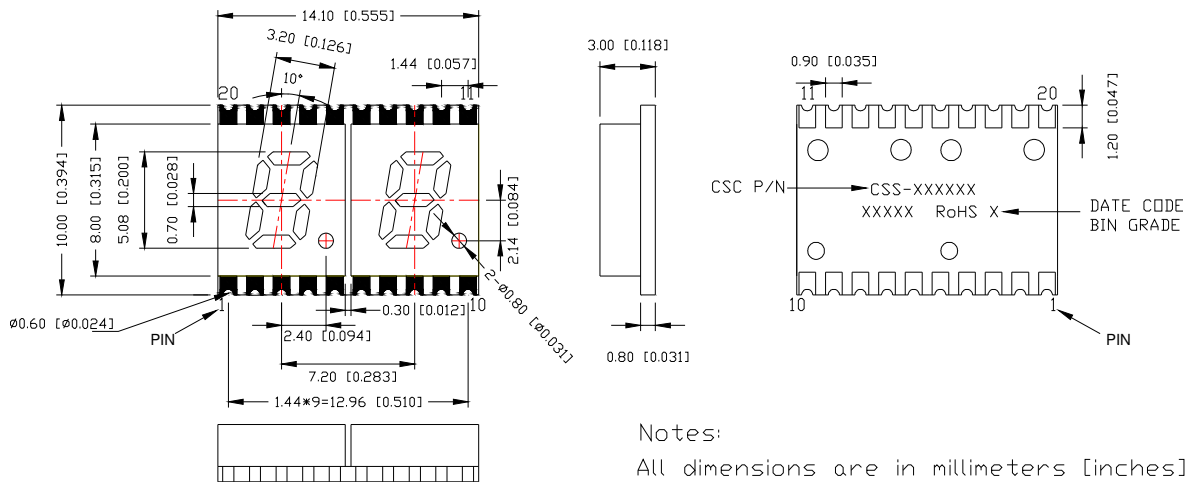
Features -

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. Easy mounting on P.C. board.

Device Selection Guide -

Model No.	Chip		Description
	Material	Emitting Color	
CSD-S20240S	AlGaAs	Super Bright Red	Common Anode
CSD-S20241S	AlGaAs	Super Bright Red	Common Cathode

Mechanical Dimensions -



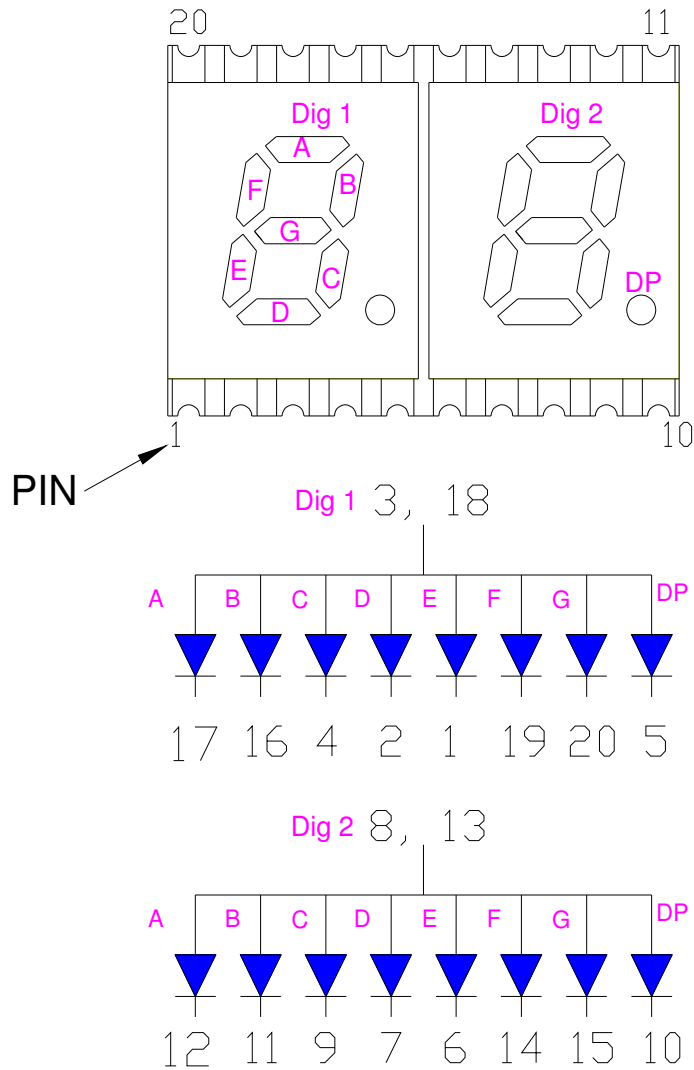
Notes:
All dimensions are in millimeters [inches],
and tolerance is ±0.25 [0.010]
unless otherwise noted.



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Internal Circuit Diagrams -



CSD-S20240 Common Anode
<CSD-S20241 Common Cathode>


Model No : CSD-S20240/S20241S
■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P_{AD}	75	mW
Continuous Forward Current Per Dice	I_{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I_{PF}	120	mA
Derating Linear From 25°C Per Dice	-	0.42	mA/°C
Reverse Voltage Per Dice	V_R	5	V
Operating Temp.	Topr	-40 ~ +105	°C
Storage Temp.	Tstg	-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	V_F	-	1.8	2.5	V	I _F =20mA
Luminous Intensity Per Segment	I_v	1.5	4	-	mcd	I _F =10mA
Peak Emission Wavelength	λ_P	-	660	-	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)

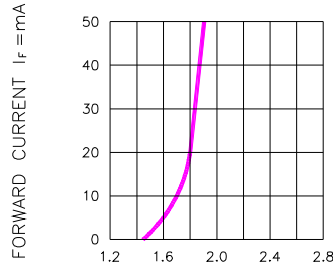


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

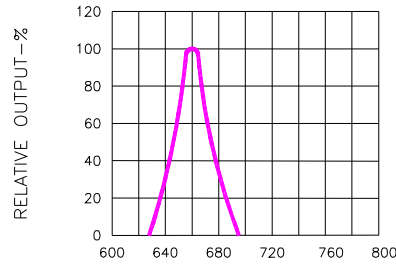


Fig.2 SPECTRAL RESPONSE

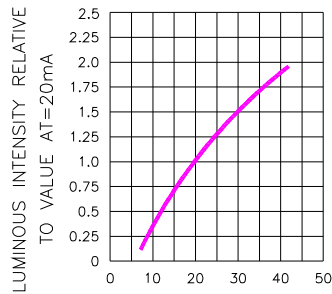


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

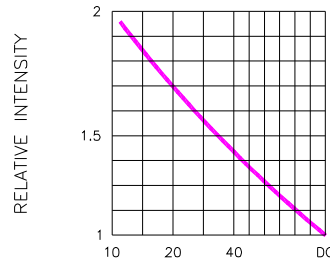


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE (AVERAGE I_F = 10mA)

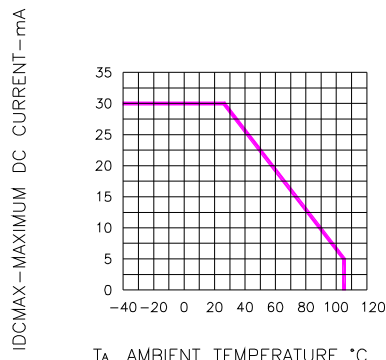


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

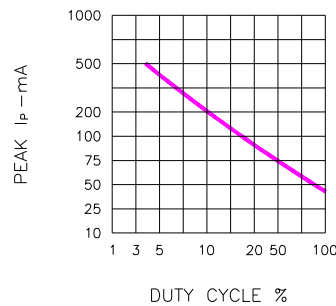


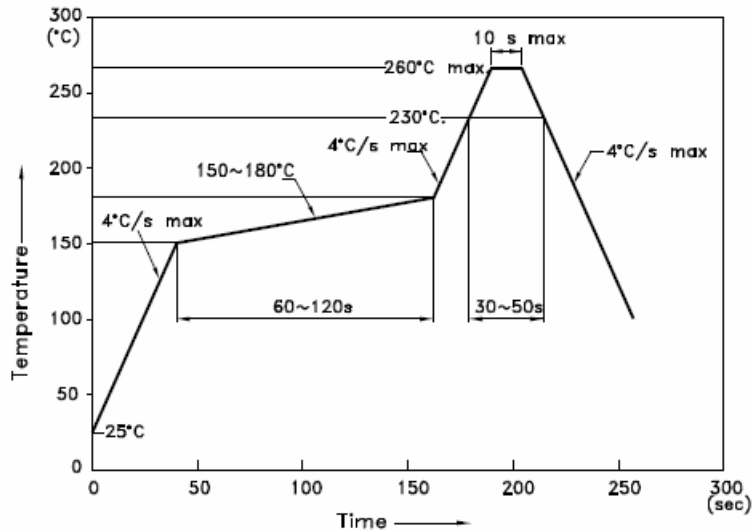
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)



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SMT REFLOW SOLDERING INSTRUCTIONS

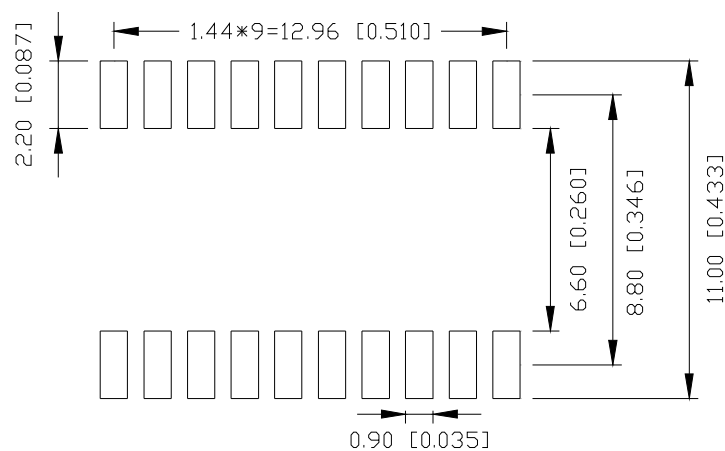
IR Reflow Temperature / Time :



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

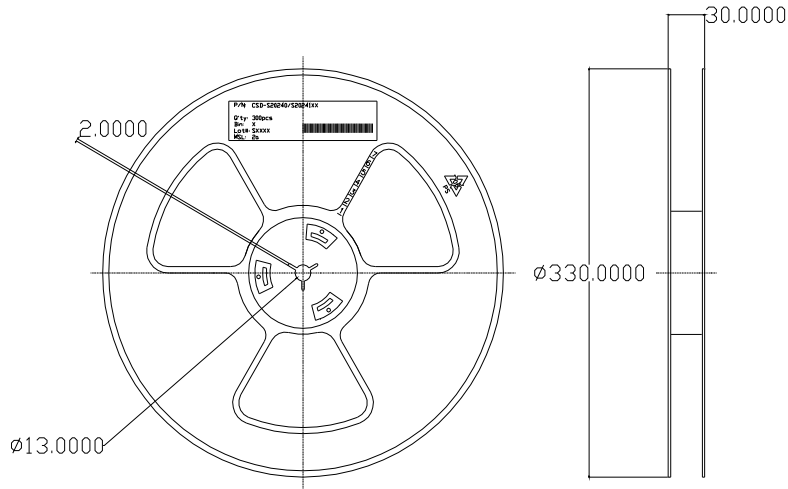




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REEL DIMENSIONS



PACKING & LABEL SPECIFICATIONS

