



PRODUCT SPECIFICATION

Model No:CSD-S30228S/S30229S

Descriptions:

- 0.3 Inch Dual Digit SMD Display
- Emitting Color : Super Bright Red



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No : CSD-S30228/S30229S

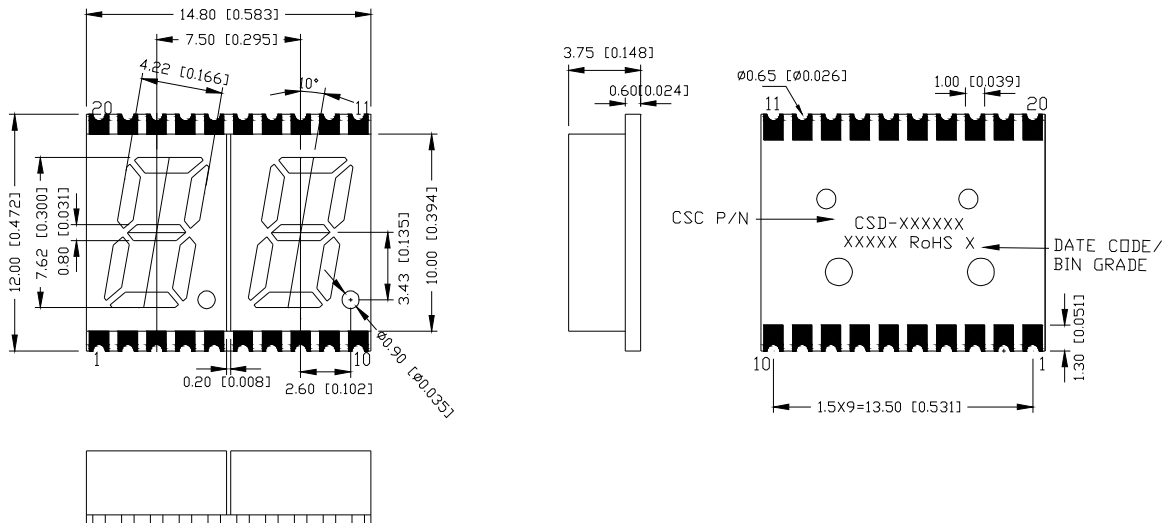
■ Features -

1. 0.3 inch (7.62mm) 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 -

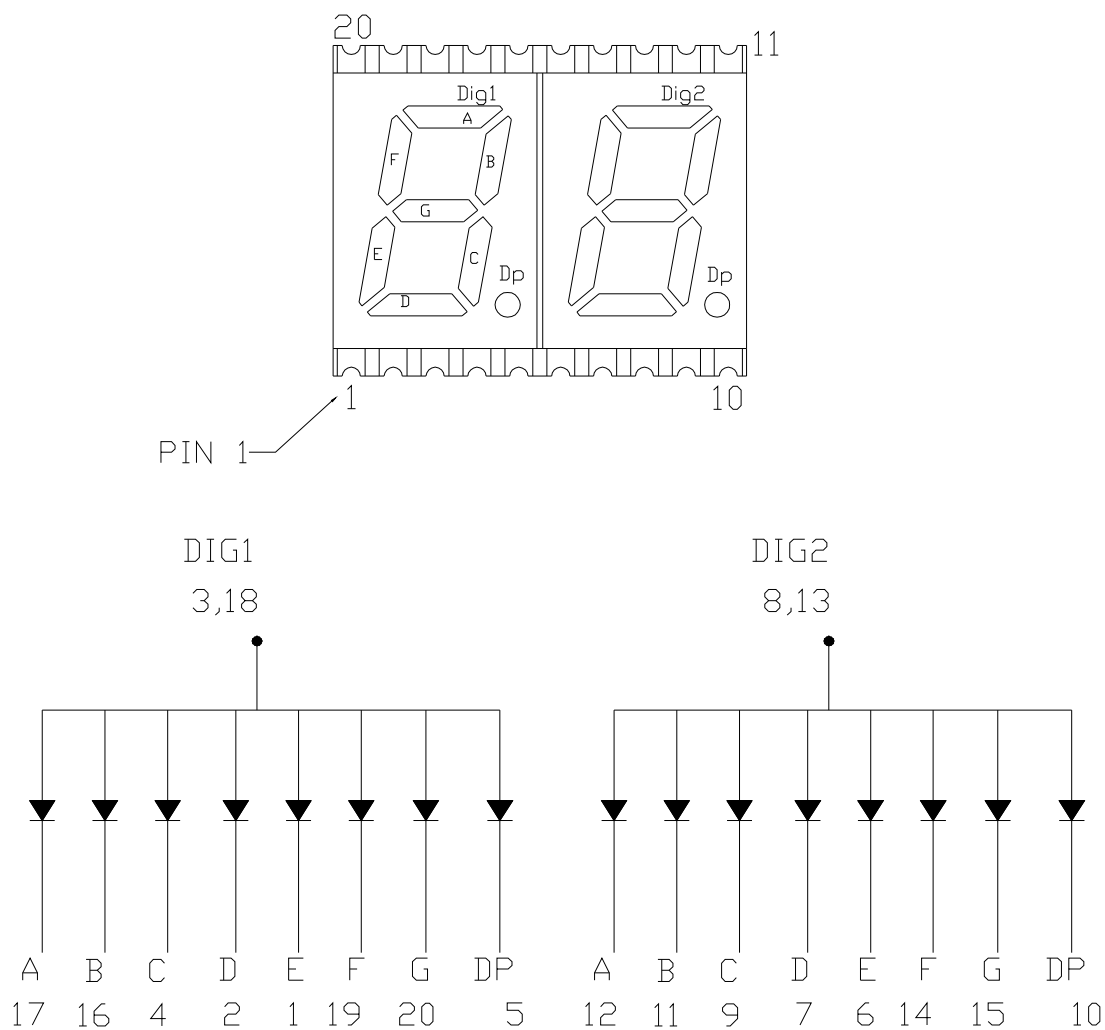
Model No.	Chip		Description
	Material	Emitting Color	
CSD-S30228S	AlGaAs	Super Bright Red	Common Anode
CSD-S30229S	AlGaAs	Super Bright Red	Common Cathode

■ 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-S30228 Common Anode
(CSD-S30229 Common Cathode)


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■ 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.	T _{opr}	-40 ~ +105	°C
Storage Temp.	T _{stg}	-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	2.5	6	-	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

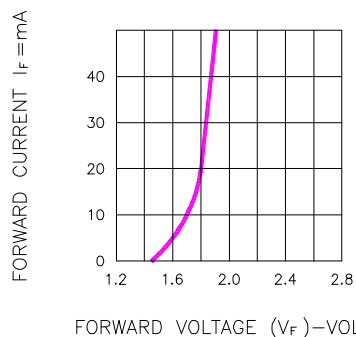
Model No : CSD-S30228/S30229S
Typical Electrical / Optical Characteristics Curves -
(Ta = 25°C Unless Otherwise Noted)


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

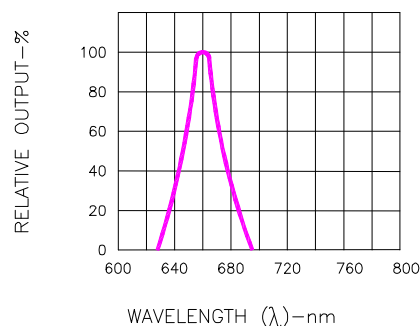


Fig.2 SPECTRAL RESPONSE

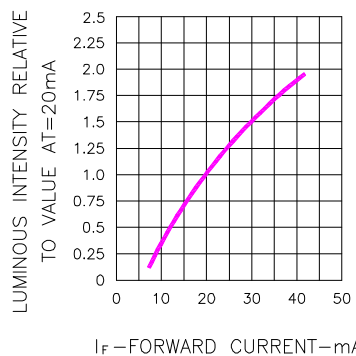


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

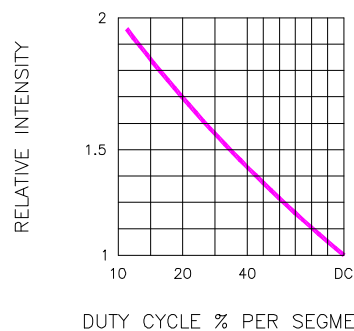
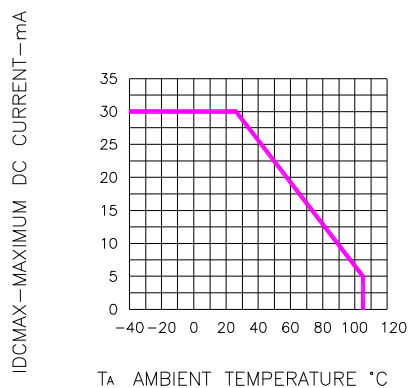
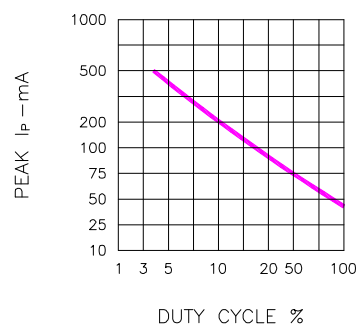

 Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE
(AVERAGE $I_F = 10\text{mA}$)


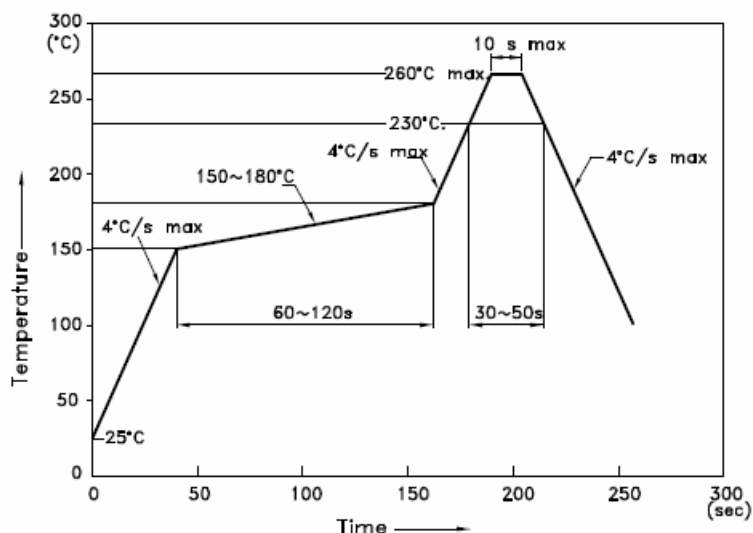
Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE


 Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE $f = 1\text{ KHz}$)


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SMT REFLOW SOLDERING INSTRUCTIONS

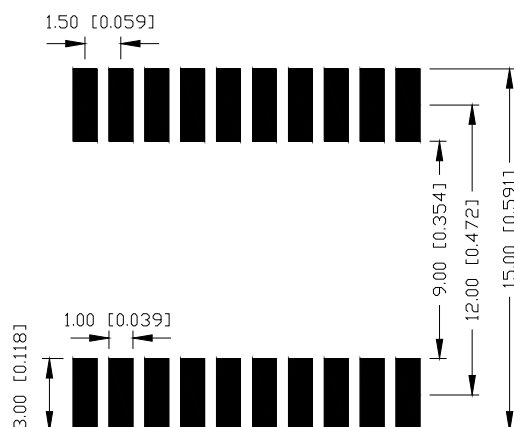
■ IR Reflow Temperature / Time :



NOTES:

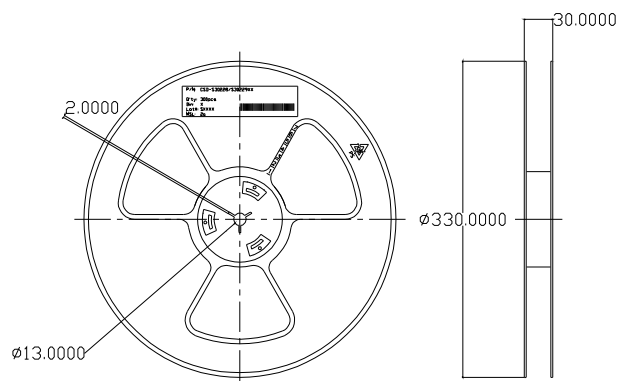
1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■ Soldering Pad Size





Spec. No.	PS-DD-S30228/S30229S
Rev.	A

Model No : CSD-S30228/S30229S**REEL DIMENSIONS****PACKING & LABEL SPECIFICATIONS**