CHINA
SEMICONDUCTOR
CORPORATION

Spec. No.	PS-DD-S56222/S56223B7
Rev.	A

PRODUCT SPECIFICATION

Model No:CSD-S56222B7/S56223B7

Descriptions:
■0.56 Inch Dual Digit SMD Display
■Emitting Color：Super Bright Blue

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
Address:2FL. NO.909,Chung-Cheng Road,
Chung-Ho City Taipei Hsien,Taiwan.

Tel:886-2-2223-9696
Fax:886-2-2223-9377

OPTO PLUS TECHNOLOGIES CO.,LTD
Address:696 Shun jiang Rd.,Ji Shan St.Shaoxing,
ZheJiang,China

Tel:86-0575-88623888
Fax:86-0575-88623112

http://www.csctw.com.tw

Model No：CSD-S56222/S56223B7

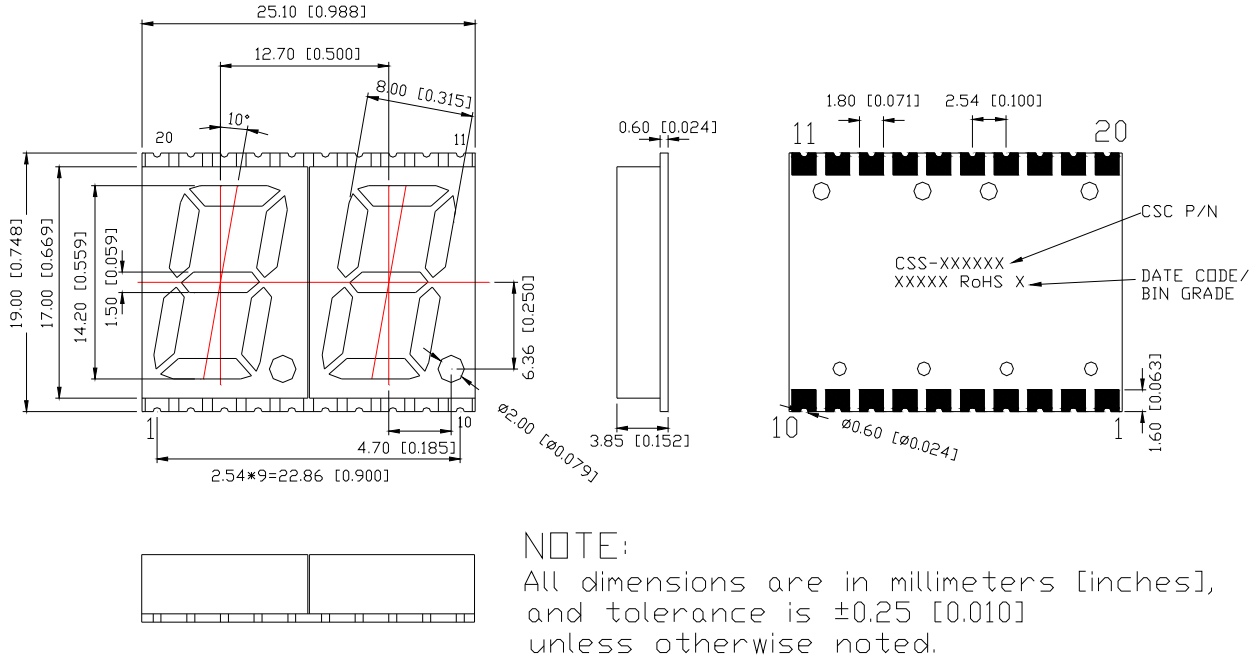
■ Features -

1. 0.56 inch (14.20mm) 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-S56222B7	InGaN	Super Bright Blue	Common Anode
CSD-S56223B7	InGaN	Super Bright Blue	Common Cathode

■ Mechanical Dimensions -



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

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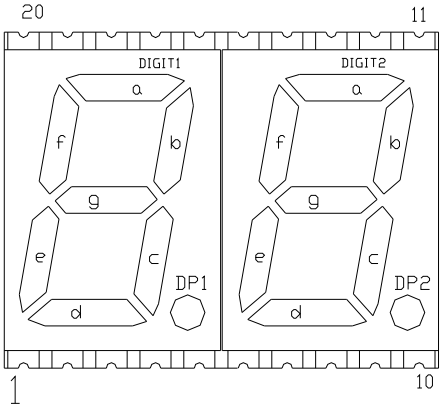
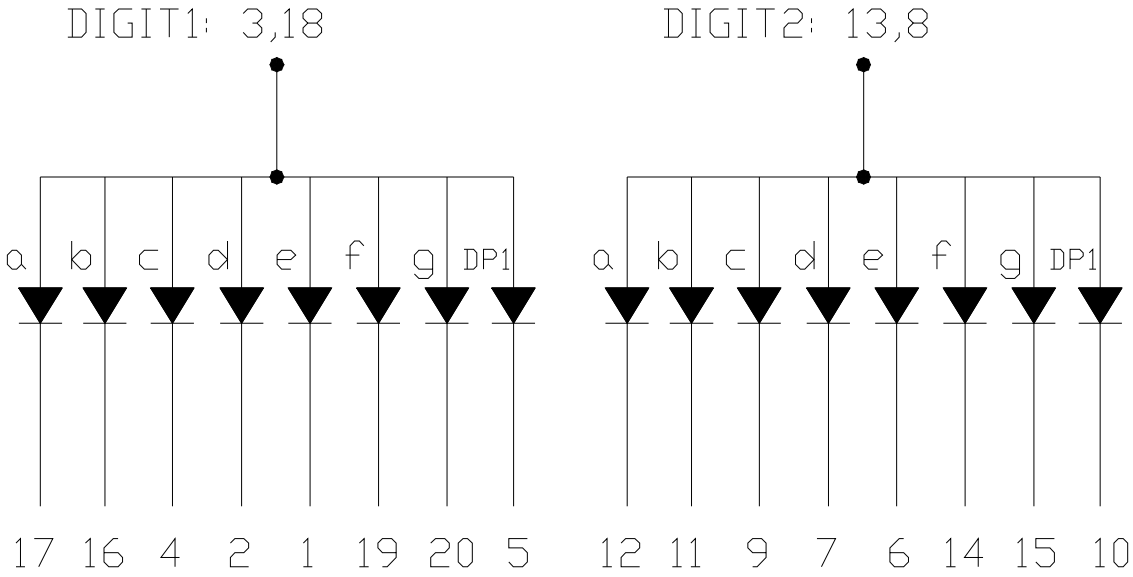
■ Internal Circuit Diagrams -





CSD-S56222 Common Anode.
(CSD-S56223 Common Cathode.)

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■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P_{AD}	120	mW
Continuous Forward Current Per Dice	I_{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I_{PF}	100	mA
Derating Linear From 25℃ Per Dice	-	0.4	mA/℃
Reverse Voltage Per Dice	V_R	5	V
Operating Temp.	Topr	-40 ~ +105	℃
Storage Temp.	Tstg	-40 ~ +105	℃

Note:Solder temperature 1/16 inch below seating plane for 3 seconds at 260℃

■ Electro-optical Characteristics -

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V_F	-	3.5	4	V	IF=20mA
Luminous Intensity Per Segment	Iv	5	20	-	mcd	IF=10mA
Dominant Wavelength	λd	-	470	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	IF=20mA
Reverse Current	I_R	-	-	50	μA	V_R=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

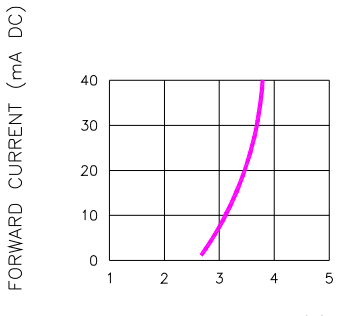

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

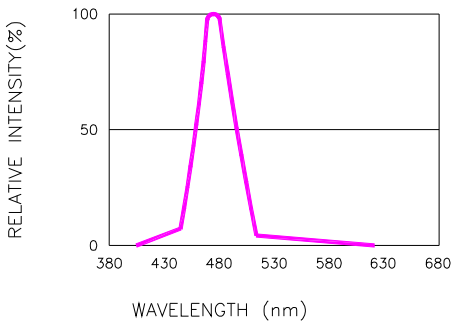

Fig.2 RELATIVE INTENSITY VS. WAVELENGTH

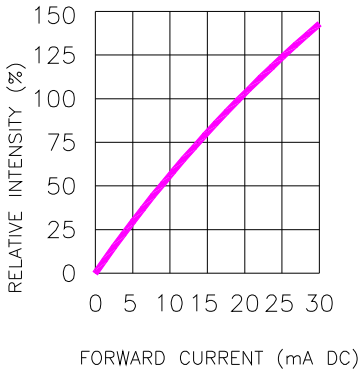

Fig.3 RELATIVE INTENSITY
VS. FORWARD CURRENT

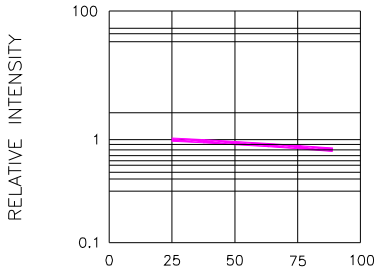

Fig.4 RELATIVE INTENSITY VS.LEAD TEMPERATURE
(PULSED 20 mA; 300us
PULSE,10ms PERIOD)

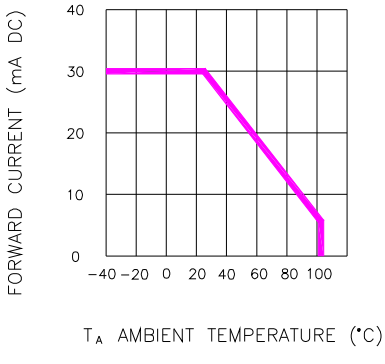

Fig.5 FORWARD CURRENT
VS. AMBIENT TEMPERATURE

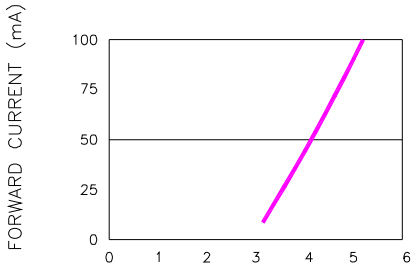

Fig.6 PEAK FORWARD VOLTAGE
VS.FORWARD(100us TEST PULSE,
1% DUTY CYCLE)

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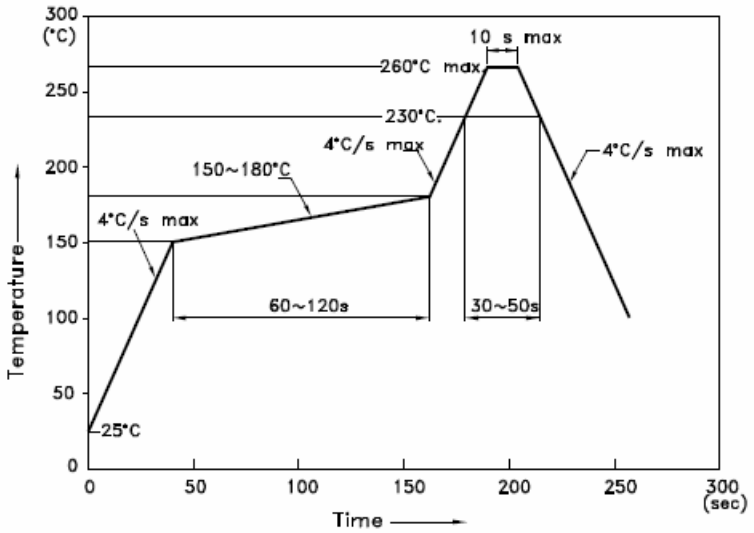
SMT REFLOW SOLDERING INSTRUCTIONS

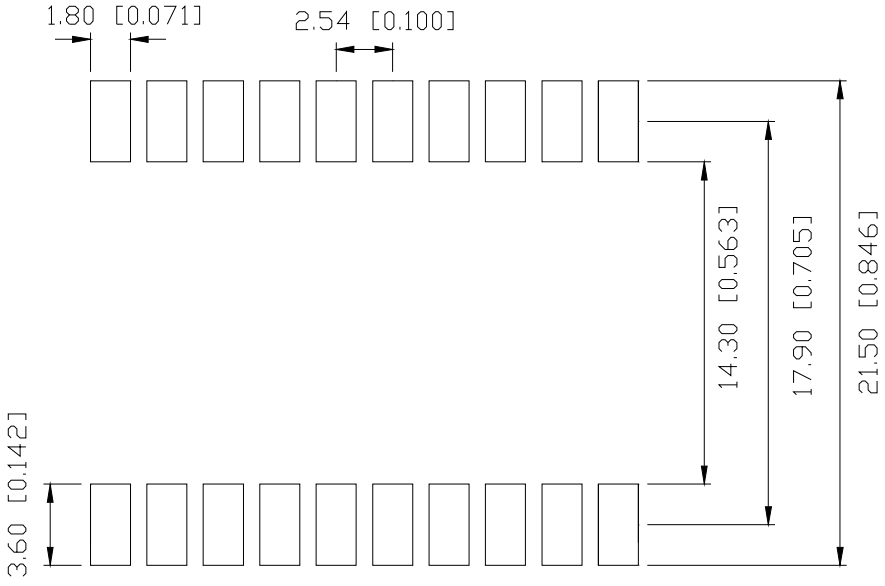
■ IR Reflow Temperature / Time :



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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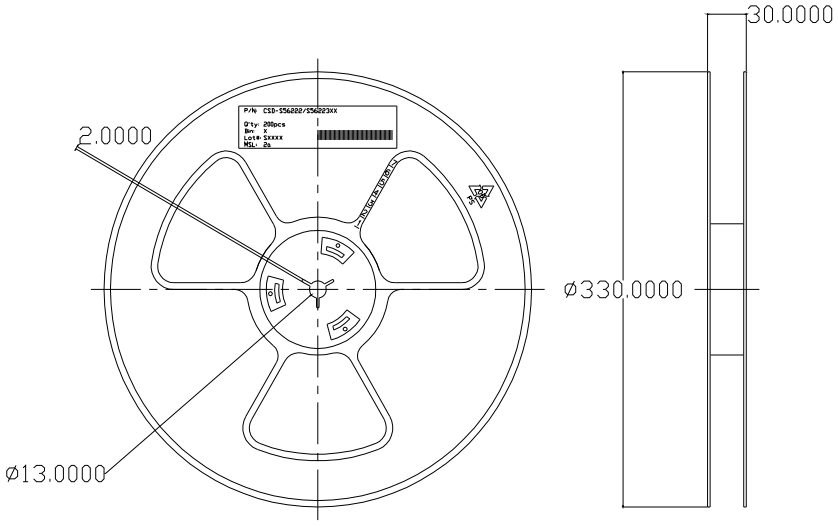
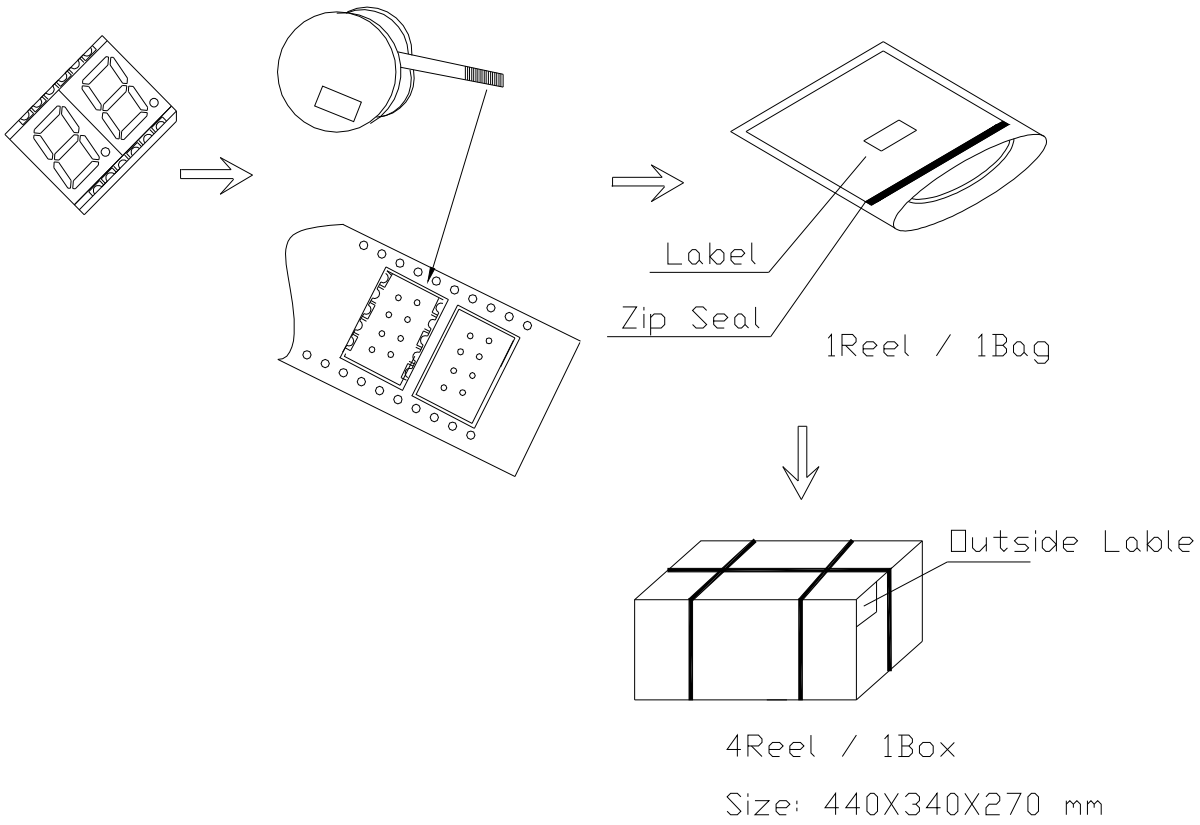
■ REEL DIMENSIONS



■ PACKING & LABEL SPECIFICATIONS



Note: The specifications are subject to change without notice. Please contact us for updated information.