CHINA
SEMICONDUCTOR
CORPORATION

Spec. No.	PS-DD-S40224/S40225G
Rev.	A

PRODUCT SPECIFICATION

Model No:CSD-S40224G/S40225G

Descriptions:
■0.4 Inch Dual Digit SMD Display
■Emitting Color：Yellow Green

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No : CSD-S40224/S40225G

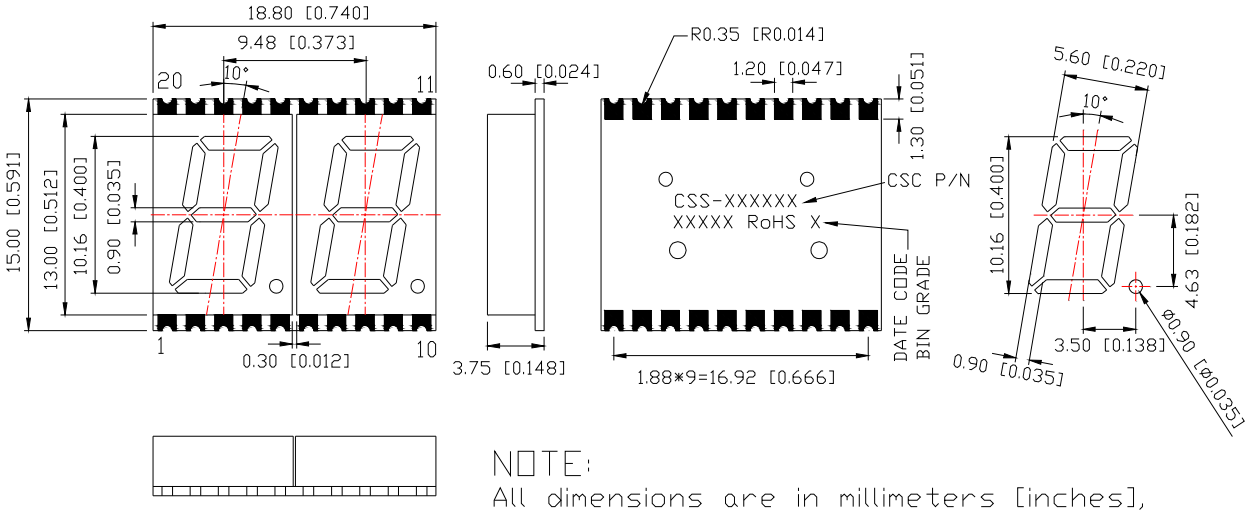
■ Features -

1. 0.4 inch (10.16mm) 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-S40224G	GaP	Yellow Green	Common Anode
CSD-S40225G	GaP	Yellow Green	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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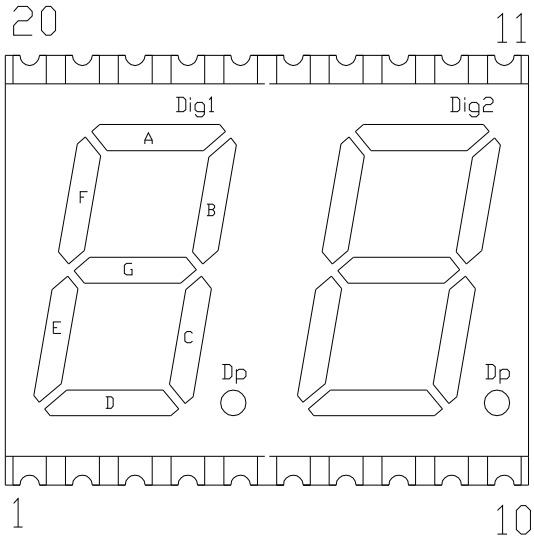
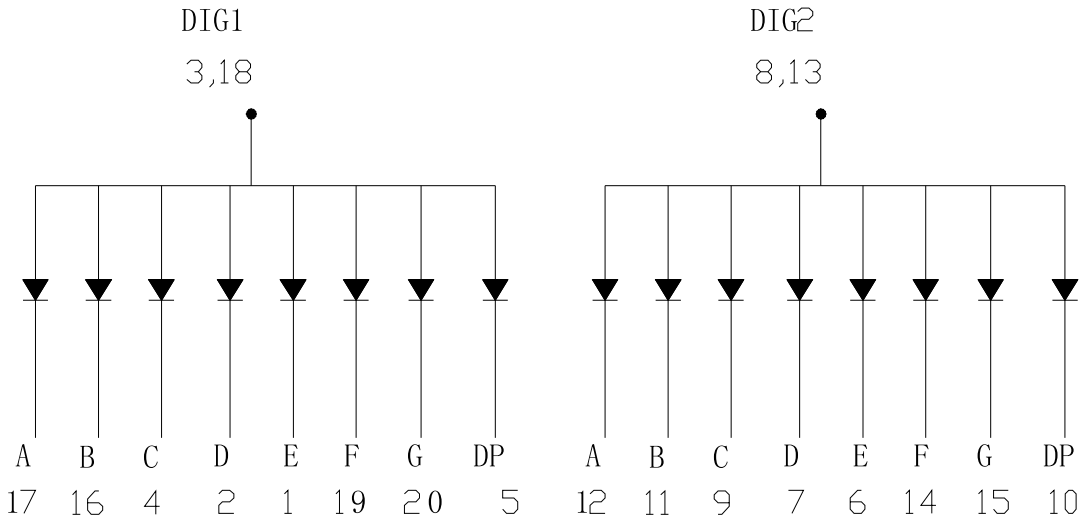
■ Internal Circuit Diagrams -





CSD-S40224 Common Anode.
(CSD-S40225 Is Common Cathode.)

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■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P_{AD}	70	mW
Continuous Forward Current Per Dice	I_{AF}	25	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I_{PF}	90	mA
Derating Linear From 25℃ Per Dice	-	0.33	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	-	2.1	2.8	V	IF=20mA
Luminous Intensity Per Segment	Iv	2	4.5	-	mcd	IF=10mA
Peak Emission Wavelength	λP	-	570	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	IF=20mA
Reverse Current	I_R	-	-	100	μA	V_R=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA

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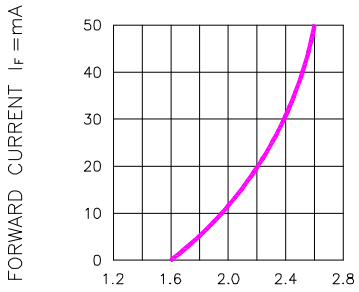
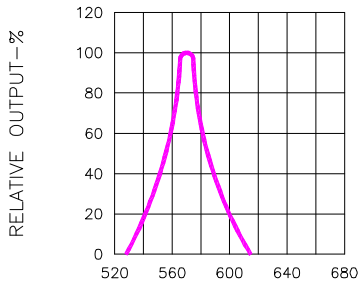
■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)



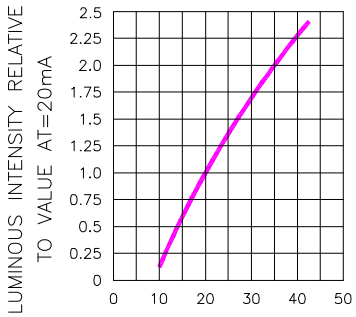
FORWARD VOLTAGE (V_F)—VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



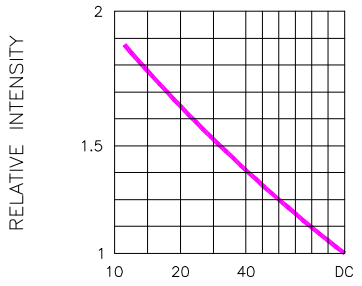
WAVELENGTH (λ)—nm

Fig.2 SPECTRAL RESPONSE



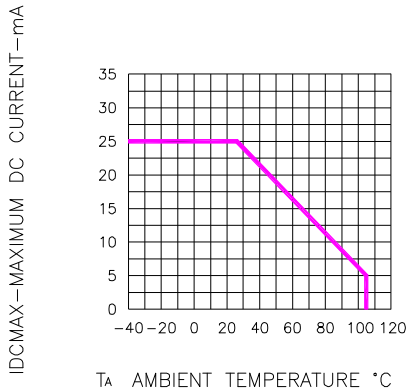
I_F—FORWARD CURRENT—mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



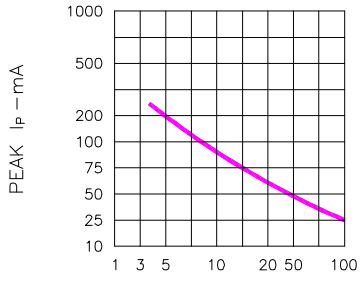
DUTY CYCLE % PER SEGMENT
(AVERAGE I_F=10mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A AMBIENT TEMPERATURE °C

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



DUTY CYCLE %

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

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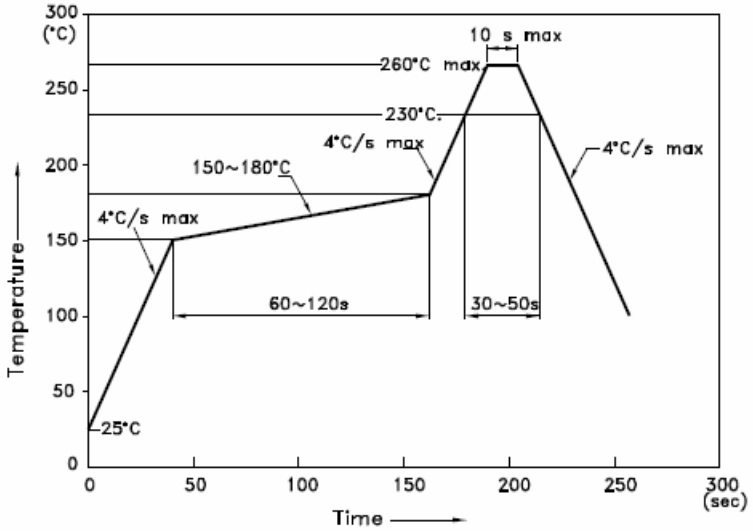
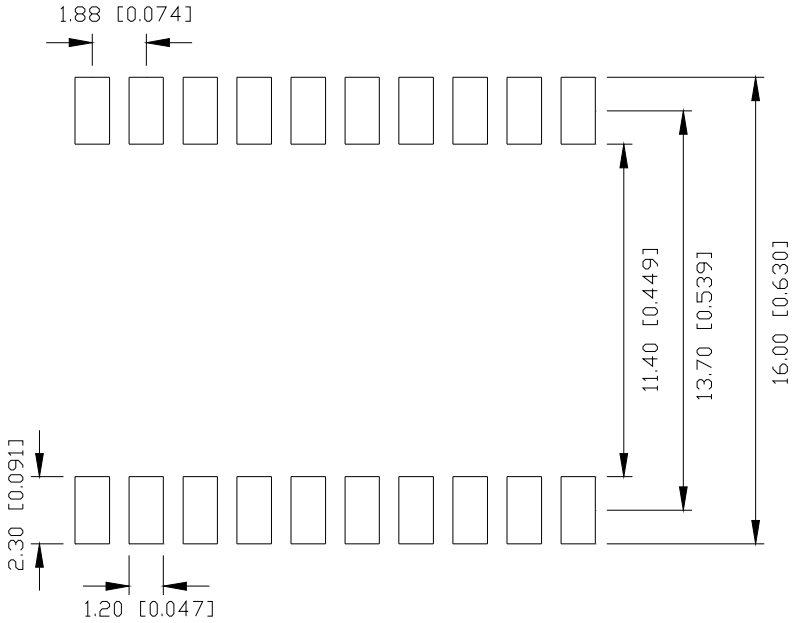
SMT REFLOW SOLDERING INSTRUCTIONS

■ 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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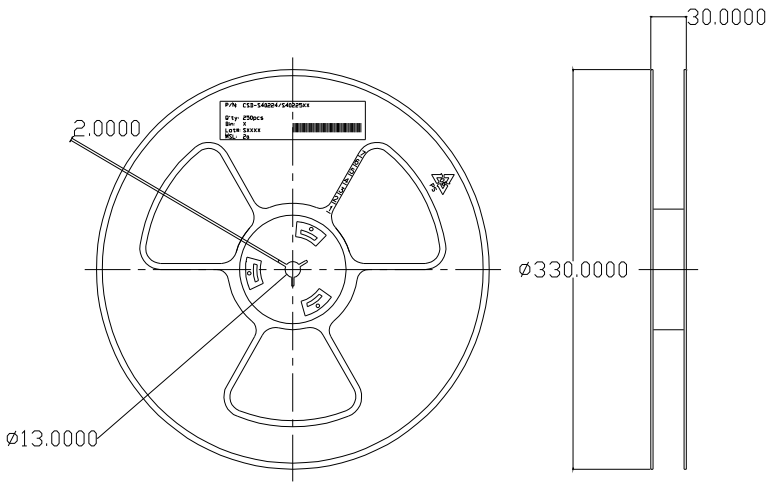
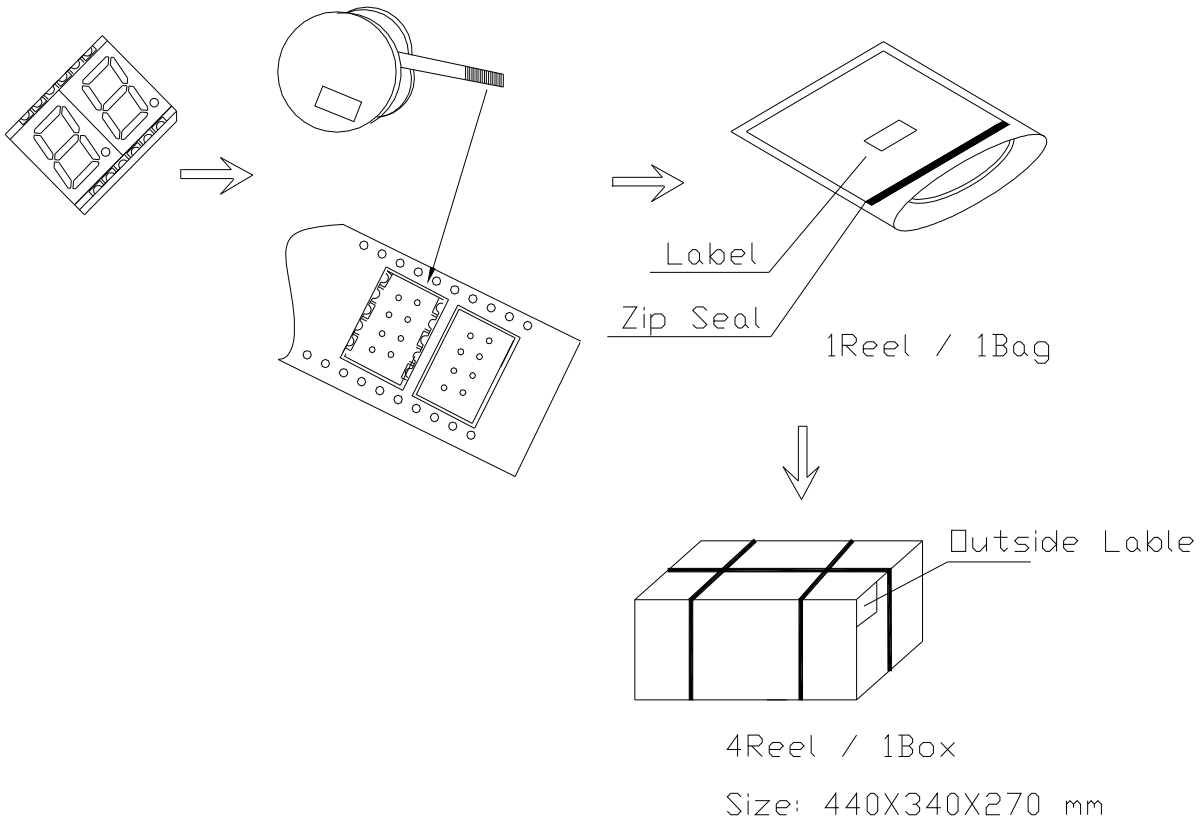
■ REEL DIMENSIONS



■ PACKING & LABEL SPECIFICATIONS



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