

PRODUCT SPECIFICATION

Model No.: CSDS-S56126 CSDS-S56127

Descriptions:
<ul style="list-style-type: none"> ■ 0.56 Inch Single Digit SMD Display ■ CSDS-S56126 is Common Anode ■ CSDS-S56127 is Common Cathode ■ Emitting Color: Orange , Pure Green,Blue ■ Standard: -11: Gray face, white segment. -21: Black face, white segment.



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No.: CSDS-S56126 CSDS-S56127

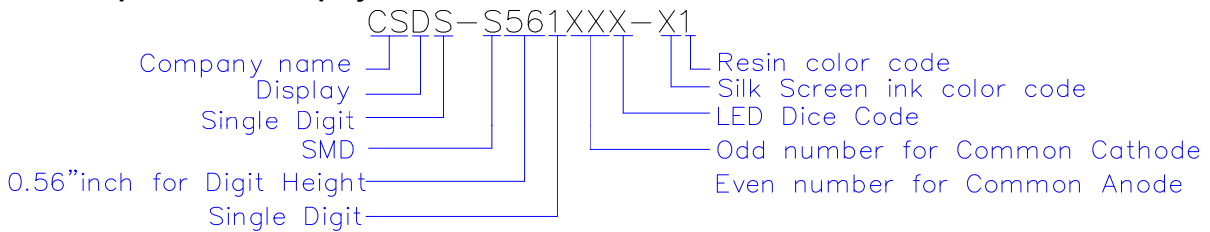
■ **Features -**

1. 0.56 inch (14.2mm) digit height.
2. Qualified according to JEDEC moisture sensitivity Level 2a.
3. RoHS compliant.
4. Low power consumption.
5. Gray face, white segment.
6. Easy mounting on P.C. board .

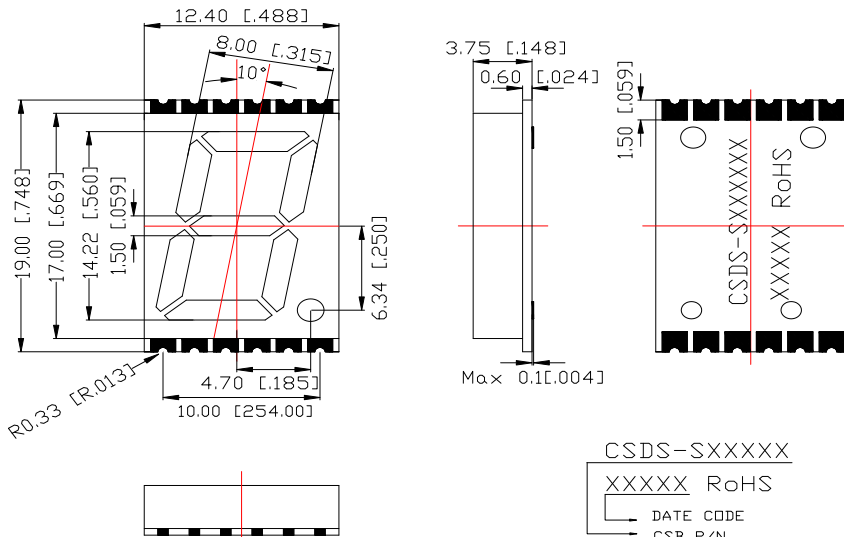
■ **Device Selection Guide -**

Model No.	Chip	
	Material	Emitting Color
CSDS-S5612xVB2	AlGaInP	Orange
	InGaN	Pure Green
	InGaN	Blue

■ **LED Numeric/Alphanumeric Display**



■ **Mechanical Dimensions -**

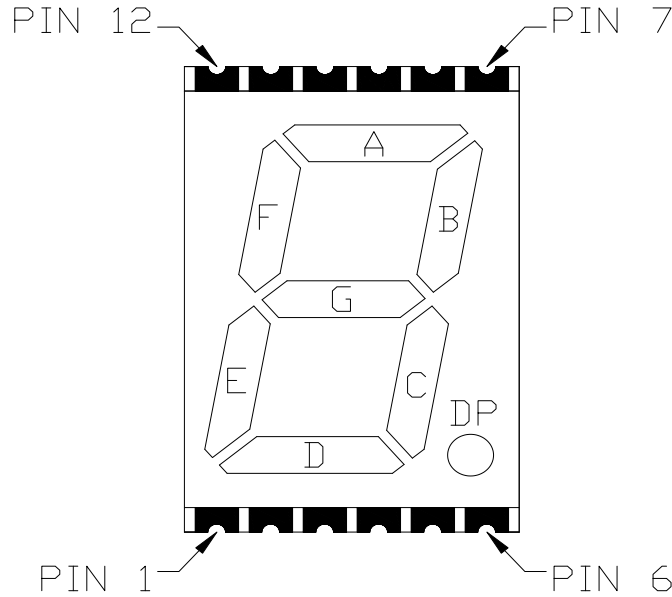


Notes:

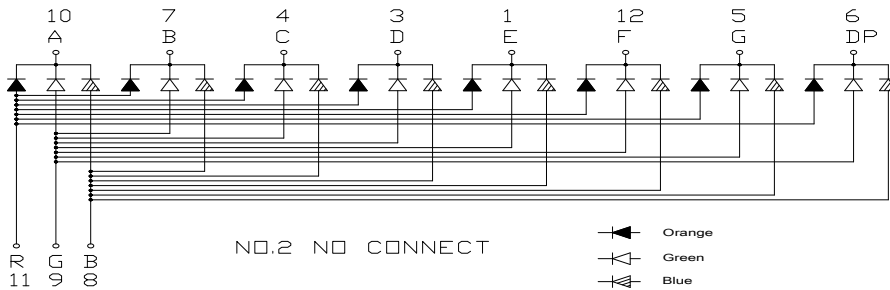
1. Dimension in millimeter [inch], and tolerance is ± 0.25 [0.010] unless otherwise noted.
2. Bending \leq Length*1%.

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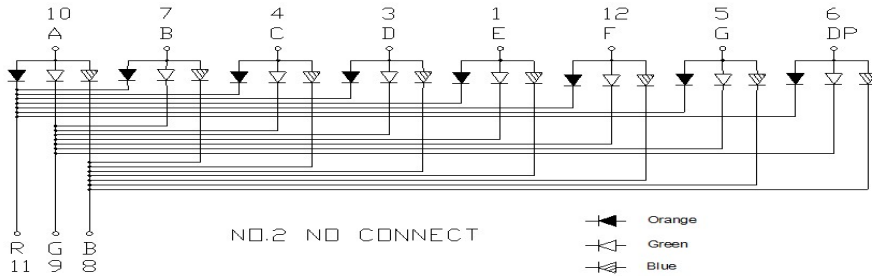
■ All Light On Segments Feature & Pad Position



■ Internal Circuit Diagrams -



CSDS-S56126 is Common Anode



CSDS-S56127 is Common Cathode

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■ Absolute Maximum Rating -

Orange		(Ta=25°C)	
Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P _{AD}	70	mW
Derating Liner from 25°C per Dice	-	0.33	mA/°C
Continuous Forward Current Per Dice	I _{AF}	25	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I _{PF}	90	mA
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	T _{opr}	-40 ~ +105	°C
Storage Temp.	T _{stg}	-40 ~ +105	°C
Hand Soldering Temp.	T _{sol}	350	°C

Pure Green		(Ta=25°C)	
Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P _{AD}	114	mW
Derating Liner from 25°C per Dice	-	0.4	mA/°C
Continuous Forward Current Per Dice	I _{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I _{PF}	100	mA
Reverse Voltage Per Dice	VR	5	V
Electrostatic discharge(HBM)	ESD	1000	V
Operating Temp.	T _{opr}	-40 ~ +105	°C
Storage Temp.	T _{stg}	-40 ~ +105	°C
Hand Soldering Temp.	T _{sol}	350	°C

Blue		(Ta=25°C)	
Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P _{AD}	114	mW
Derating Liner from 25°C per Dice	-	0.4	mA/°C
Continuous Forward Current Per Dice	I _{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I _{PF}	100	mA
Reverse Voltage Per Dice	VR	5	V
Electrostatic discharge(HBM)	ESD	1000	V
Operating Temp.	T _{opr}	-40 ~ +105	°C
Storage Temp.	T _{stg}	-40 ~ +105	°C
Hand Soldering Temp.	T _{sol}	350	°C

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■ Electro-optical Characteristics -

Orange							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage Per Segment	V_F	-	2	2.8	V	$I_F=20mA$	
Luminous Intensity Per Segment	I_v	-	8	-	mcd	$I_F=10mA$	
Peak Emission Wavelength	λ_P	-	632	-	nm	$I_F=20mA$	
Dominant Wavelength	λ_d	-	625	-	nm	$I_F=20mA$	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	$I_F=20mA$	
Reverse Current	I_R	-	-	100	μA	$V_R=5V$	
Luminous Intensity Matching Ratio	I_v-m	-	-	2:1	-	$I_F=10mA$	

Pure Green							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage Per Segment	V_F	-	3.2	3.8	V	$I_F=20mA$	
Luminous Intensity Per Segment	I_v	-	70	-	mcd	$I_F=10mA$	
Dominant Wavelength	λ_d	-	525	-	nm	$I_F=20mA$	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	$I_F=20mA$	
Reverse Current	I_R	-	-	100	μA	$V_R=5V$	
Luminous Intensity Matching Ratio	I_v-m	-	-	2:1	-	$I_F=10mA$	

Blue							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage Per Segment	V_F	-	3.2	3.8	V	$I_F=20mA$	
Luminous Intensity Per Segment	I_v	-	12	-	mcd	$I_F=10mA$	
Dominant Wavelength	λ_d	-	470	-	nm	$I_F=20mA$	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	$I_F=20mA$	
Reverse Current	I_R	-	-	100	μA	$V_R=5V$	
Luminous Intensity Matching Ratio	I_v-m	-	-	2:1	-	$I_F=10mA$	

Note: The device can not operated under continuous reverse voltage.

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Electrical / Optical Characteristics Curves -

Orange

(Ta = 25°C Unless Otherwise Noted)

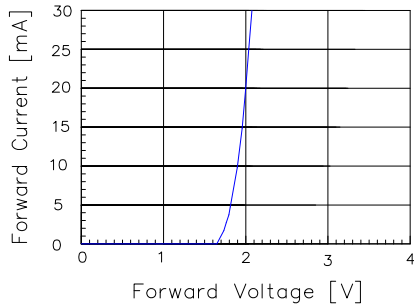


Fig 1. Forward Current vs. Forward Voltage

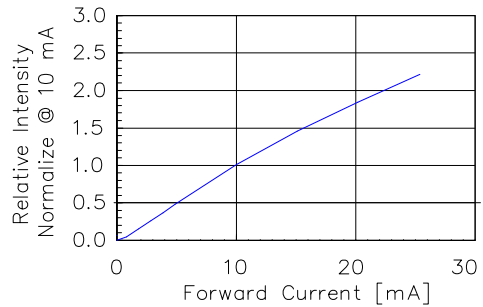


Fig 2. Relative Intensity vs. Forward Current

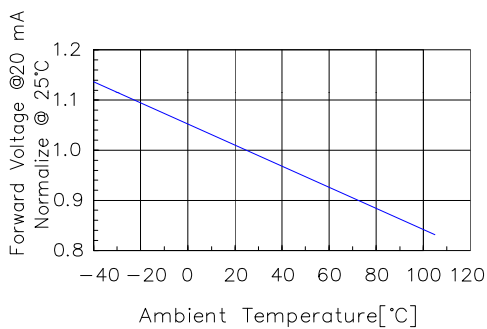


Fig 3. Forward Voltage vs. Temperature

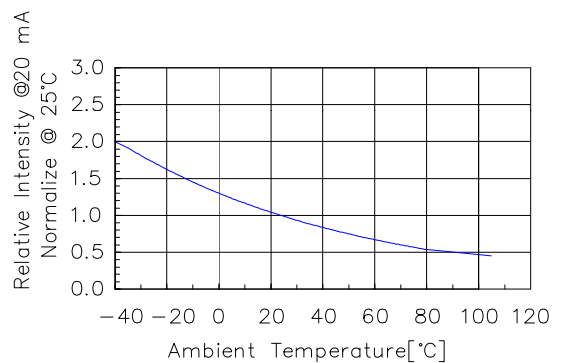


Fig 4. Relative Intensity vs. Temperature

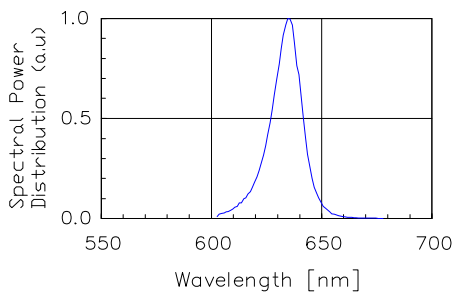


Fig 5. Spectral Power Distribution vs. Wavelength

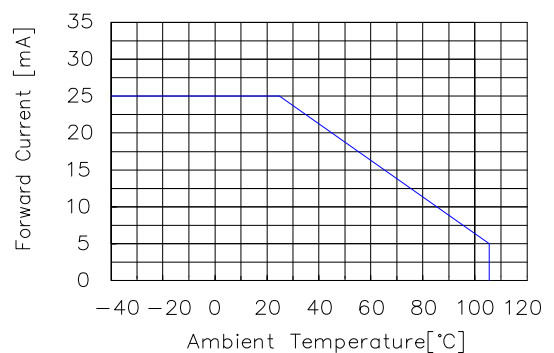


Fig 6. Forward current vs. Temperature

● Pure Green

(Ta = 25°C Unless Otherwise Noted)

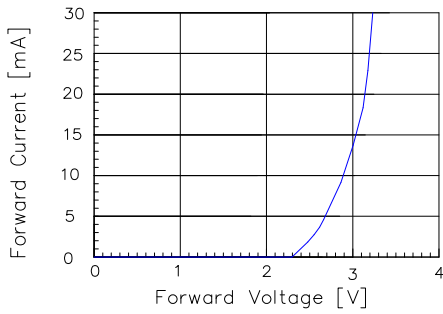


Fig 1. Forward Current vs. Forward Voltage

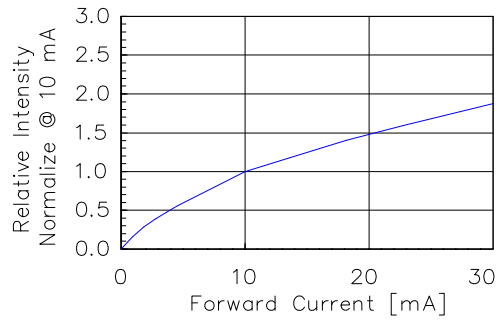


Fig 2. Relative Intensity vs. Forward Current

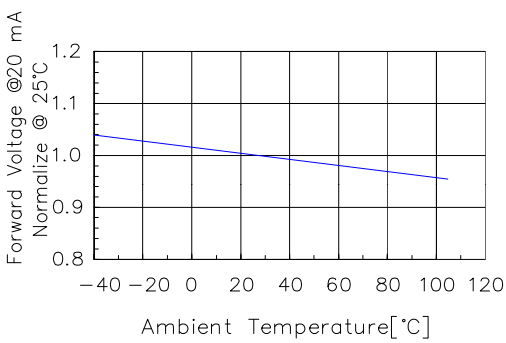


Fig 3. Forward Voltage vs. Temperature

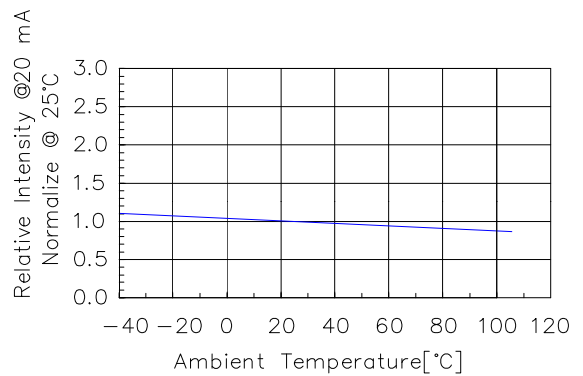


Fig 4. Relative Intensity vs. Temperature

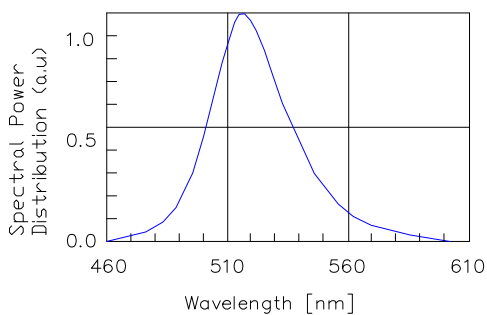


Fig 5. Spectral Power Distribution vs. Wavelength

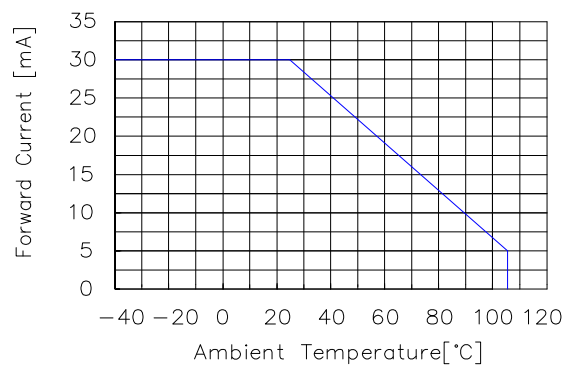


Fig 6. Forward current vs. Temperature

● Blue

(Ta = 25°C Unless Otherwise Noted)

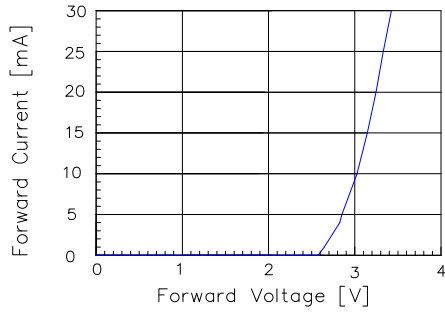


Fig 1. Forward Current vs. Forward Voltage

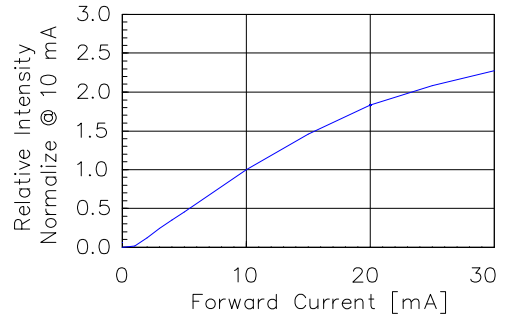


Fig 2. Relative Intensity vs. Forward Current

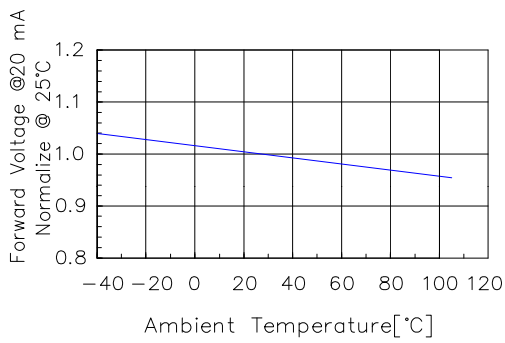


Fig 3. Forward Voltage vs. Temperature

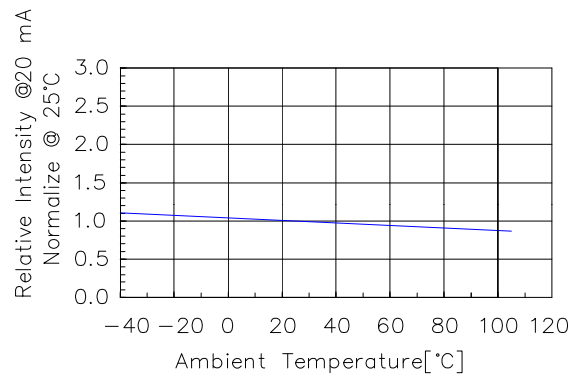


Fig 4. Relative Intensity vs. Temperature

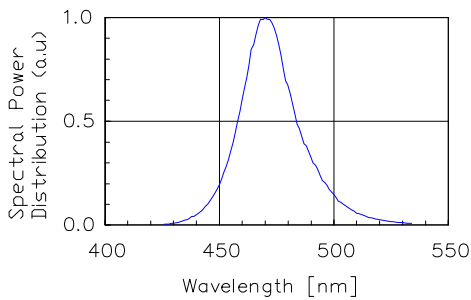


Fig 5. Spectral Power Distribution vs. Wavelength

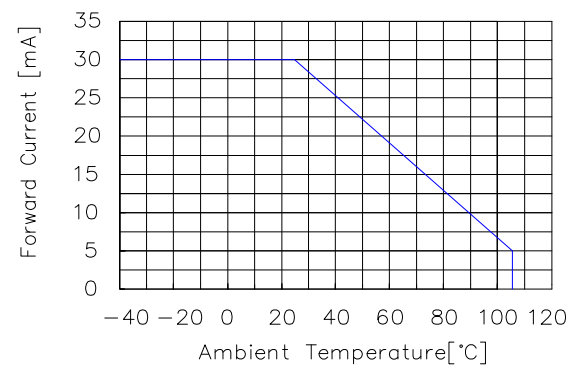
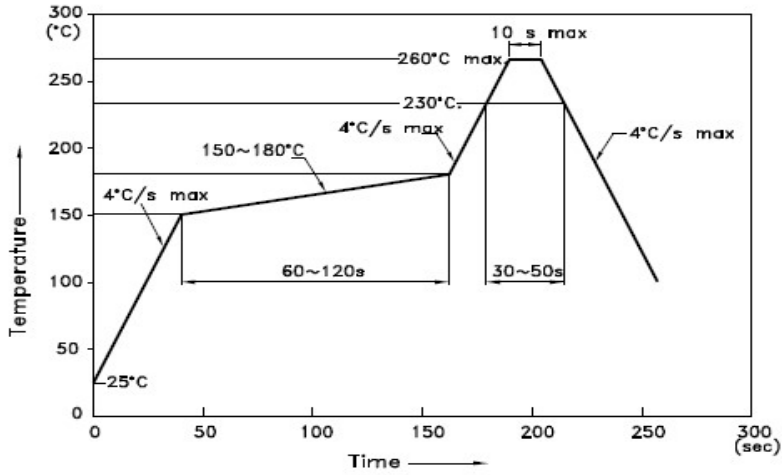


Fig 6. Forward current vs. Temperature

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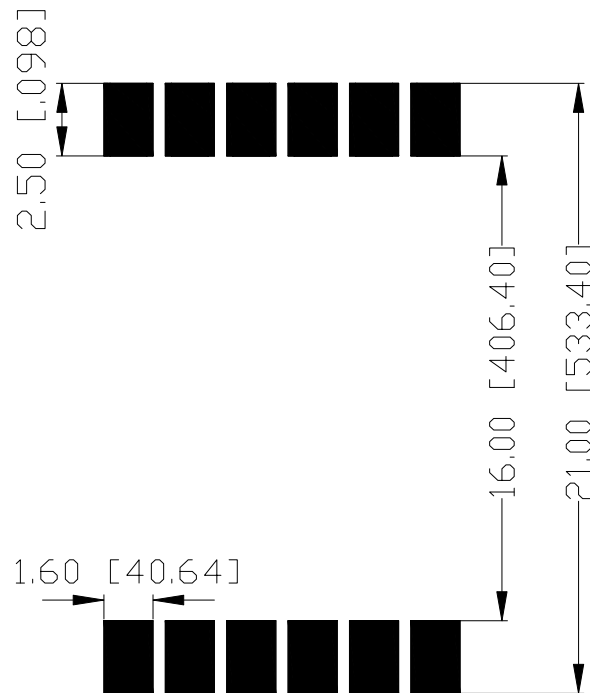
IR Reflow Temperature / Time :



NOTES:

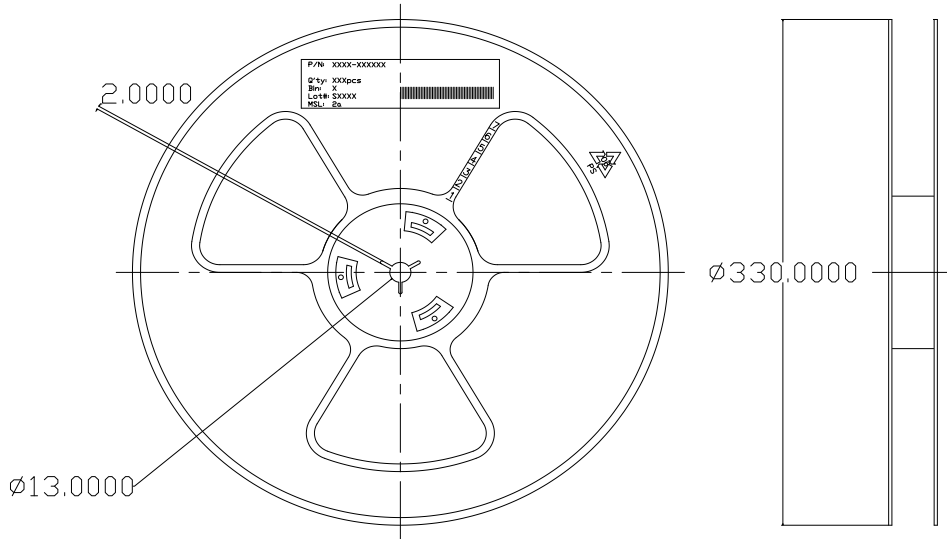
1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Soldering Pad Size

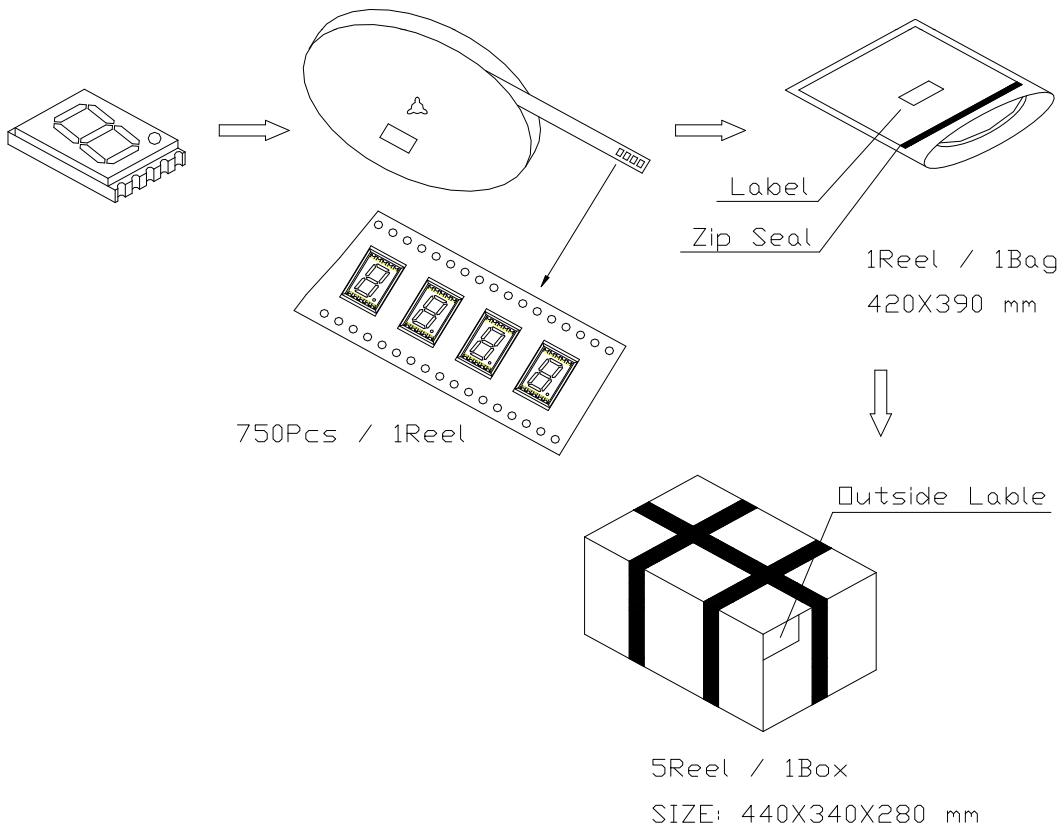


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■ REEL DIMENSIONS



■ PACKING & LABEL SPECIFICATIONS



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