



# PRODUCT SPECIFICATION

**Model No : CST-432S/431S**

## Descriptions:

- 0.4 Inch Triad Digits Display
- CST-432: Common Anode
- CST-431: Common Cathode
- Emitting Color: Super Bright Red



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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**Model No : CST-432/431S**

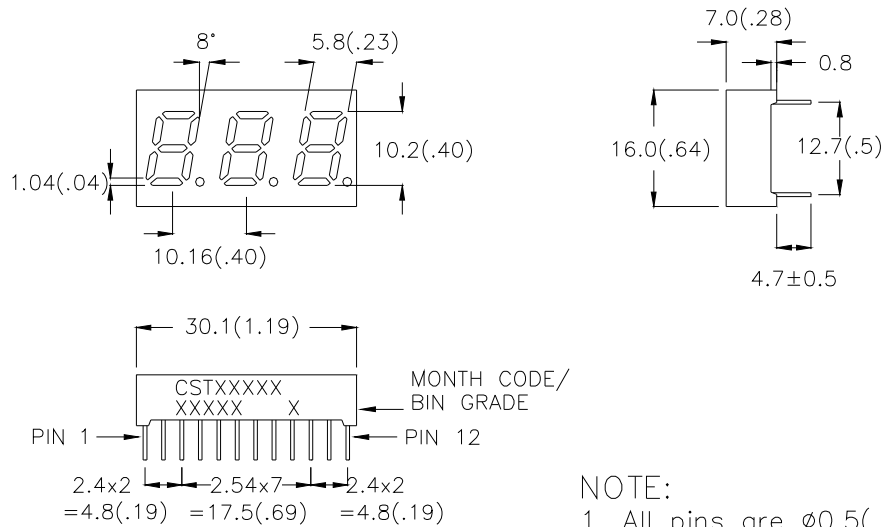
**Features -**

1. 0.4 inch (10.2mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

**Device Selection Guide -**

Part No.	Chip		Description
	Material	Emitted Color	
<b>CST-432S</b>	<b>AlGaAs</b>	<b>Super Bright Red</b>	<b>Common Anode</b>
<b>CST-431S</b>	<b>AlGaAs</b>	<b>Super Bright Red</b>	<b>Common Cathode</b>

**Package Dimensions -**



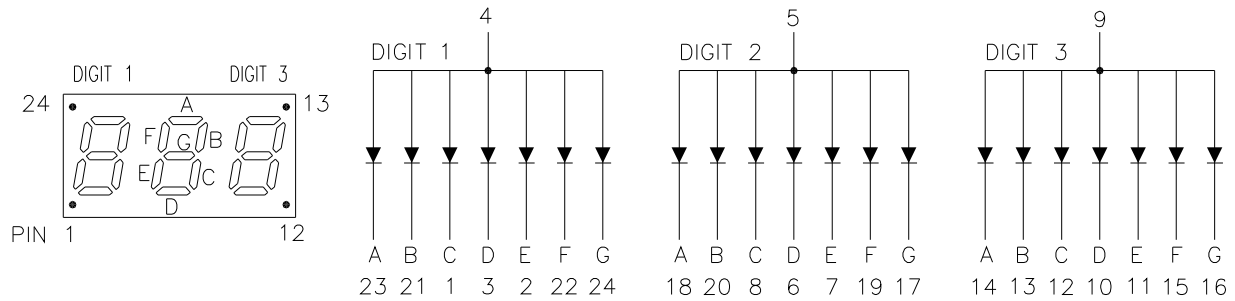
**NOTE:**

1. All pins are  $\phi 0.5(.02)$ .
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.25 (.01)$  unless otherwise noted.



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**Internal Circuit Diagrams -**



CST-432 Common Anode  
(CST-431 Common Cathode)

**Absolute Maximum Rating -**

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>P<sub>AD</sub></b>	75	mW
Continuous Forward Current Per Dice	<b>I<sub>AF</sub></b>	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	<b>I<sub>PF</sub></b>	120	mA
Derating Linear From 25°C Per Dice	-	0.42	mA/°C
Reverse Voltage Per Dice	<b>V<sub>R</sub></b>	5	V
Operating Temp.	<b>T<sub>opr</sub></b>	-35 ~ +85	°C
Storage Temp.	<b>T<sub>stg</sub></b>	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			



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■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V <sub>F</sub>	-	1.8	2.5	V	I <sub>F</sub> =20mA
Luminous Intensity Per Segment	I <sub>v</sub>	-	5	-	mcd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λ <sub>p</sub>	-	660	-	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	-	644	-	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-	-	100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>	-	-	2:1	-	I <sub>F</sub> =10mA



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**Typical Electrical / Optical Characteristics Curves -**

**(Ta = 25°C Unless Otherwise Noted)**

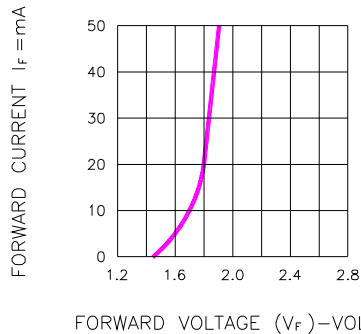


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

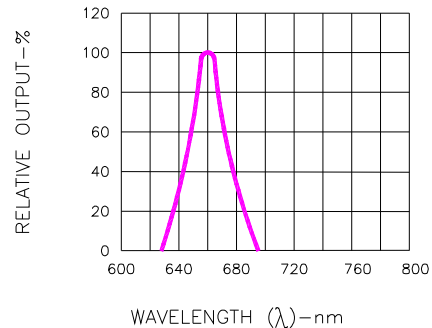


Fig.2 SPECTRAL RESPONSE

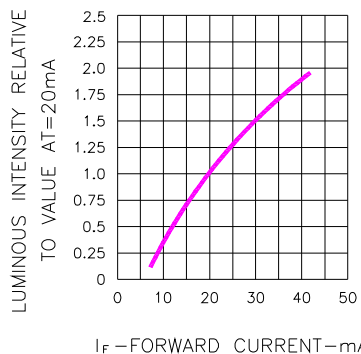


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

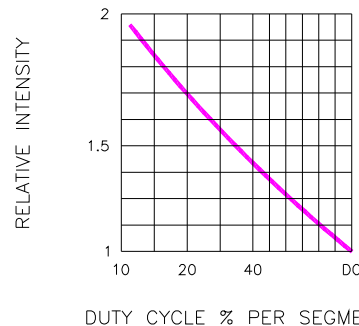


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

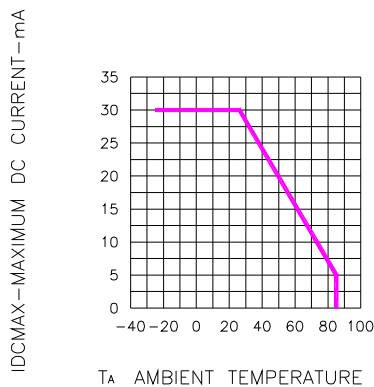


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

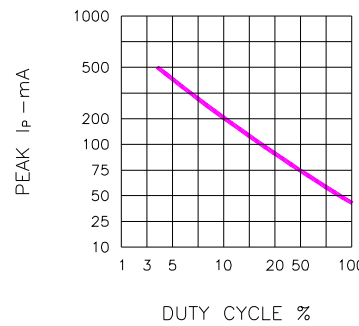


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

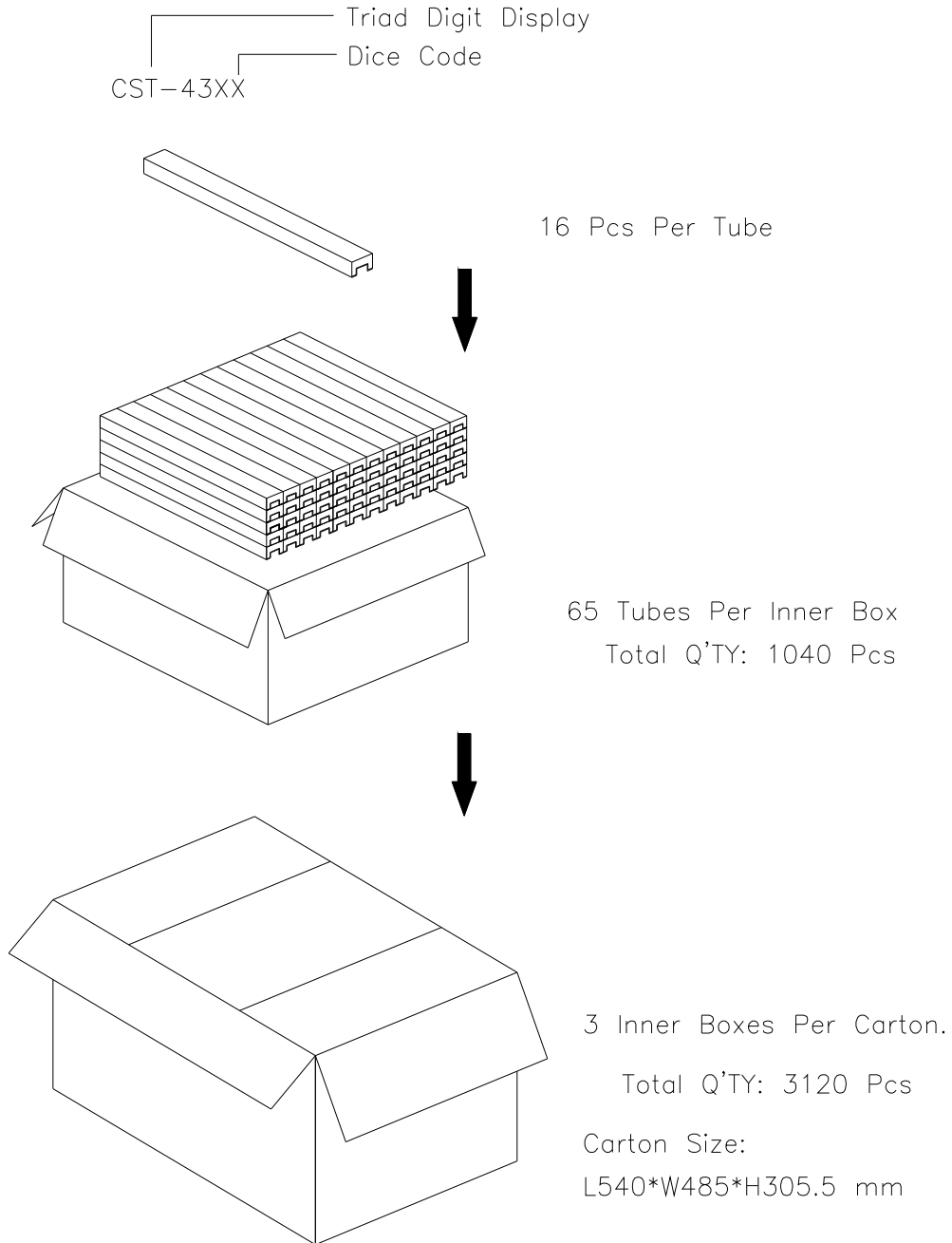


**CHINA  
SEMICONDUCTOR  
CORPORATION**

Spec. No.	PS-ND-08072515
Rev.	A

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**Package Dimensions**



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