CHINA SEMICONDUCTOR CORPORATION

SINGLE DIGHT DISPLAY
CSS-314E/315E

Feature
- 0.3 inch (7.62mm) Digit height.
- Case mold type
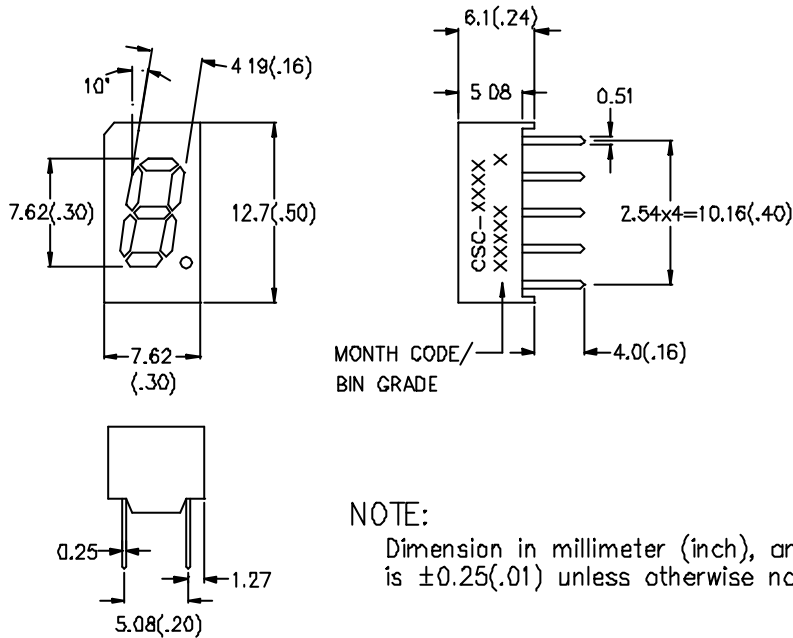- Excellent character appearance
- Wide viewing angle

Model no.
- CSS-314E/315E Orange (GaAsP/ GaP)

Description
- CSS-314E is common anode
- CSS-315E is common cathode
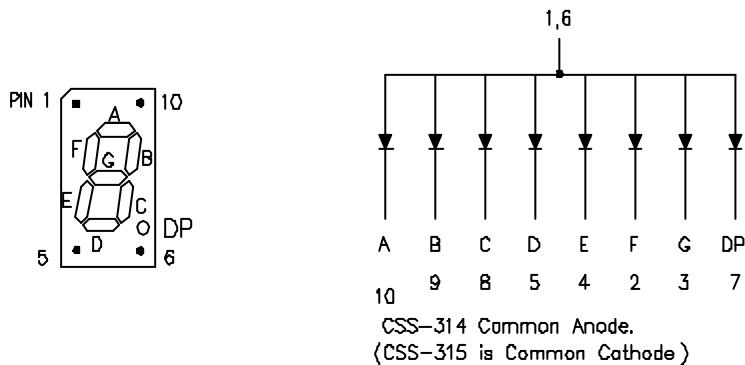-

Mechanical Dimension

10°
4 19(.16)
7.62(.30)
12.7(.50)
7.62 (.30)
6.1(.24)
5 08
0.51
CSC- XXXX X
XXXXX
2.54x4=10.16(.40)
MONTH CODE/ BIN GRADE
4.0(.16)
0.25
1.27
5.08(.20)

NOTE:
Dimension in millimeter (inch), and tolerance is ±0.25(.01) unless otherwise noted.

Typical Internal Equivalent Circuit

PIN 1
A
F G B
E C
D
DP
10
5 6
O
O

1,6

| A | B | C | D | E | F | G | DP |
| 10 | 9 | 8 | 5 | 4 | 2 | 3 | 7 |

CSS-314 Common Anode.
(CSS-315 is Common Cathode)

Absolute Maximum Ratings (T$_A$ 25)

Parameter	Symbol	Orange Red	Unit
Power dissipation per dice	P$_{AD}$	70	mW
Derating Liner from 25 per dice		0.33	mA
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	V$_R$	5	V
Operating temperature	Topr	-25 to +85	
Storage temperature	Tstg	-25 to +85	
Solder temperature 1/16 inch below seating plane for 3 seconds at 250			

Electro-optical Characteristics (T$_A$=25)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage per segment	V$_F$	I$_F$=20mA	-	2.0	2.8	V
Luminous intensity per segment	I$_V$	I$_F$=20mA	-	4	-	mcd
Peak emission wavelength	p	I$_F$=20mA	-	635	-	nm
Spectrum radiation bandwidth		I$_F$=20mA	-	35	-	nm
Reverse current	I$_R$	V$_R$=5V	-	-	100	μA

Bin Grade (Unit: mcd)

Device \ Bin	O	P	Q	R	S	
Orange Red	2.6~3.5	3.6~4.9	5.0~6.6	6.7~8.9	9.0~12.0	

 * Tolerance : ± 20%.

04-04-A

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ORANGE-RED (GaAsP/GaP) GENERAL SPECIFICATIONS

Typical Electro-optical Characteristic Curves
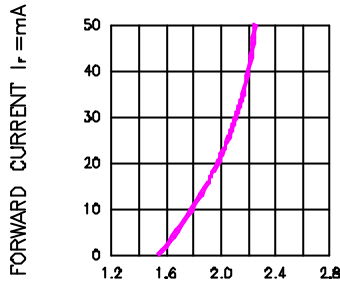### (25°C Free Air Temperature Unless Otherwise Specified)
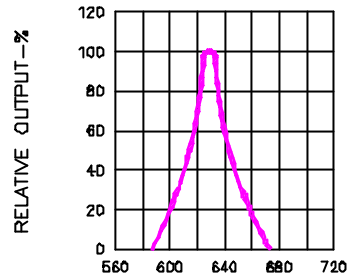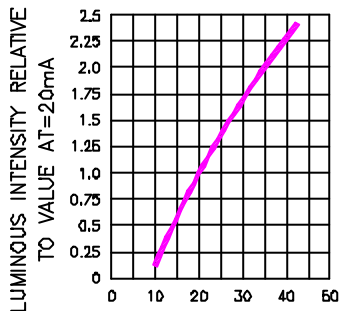
Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

FORWARD CURRENT I_F=mA

FORWARD VOLTAGE (V_F)—VOLTS

Fig.2 SPECTRAL RESPONSE

RELATIVE OUTPUT—%

WAVELENGTH (λ)—nm

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

LUMINOUS INTENSITY RELATIVE TO VALUE AT=20mA

I_F—FORWARD CURRENT—mA
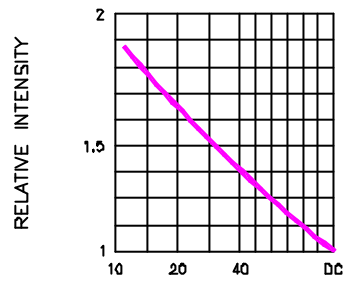
Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

RELATIVE INTENSITY

DUTY CYCLE % PER SEGMENT (AVERAGE I_F=10mA)
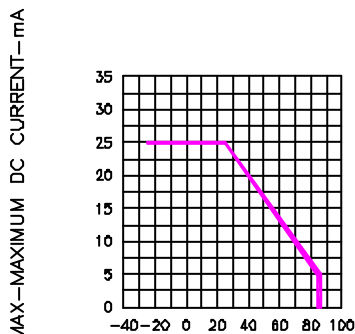
Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

IDCMAX—MAXIMUM DC CURRENT—mA
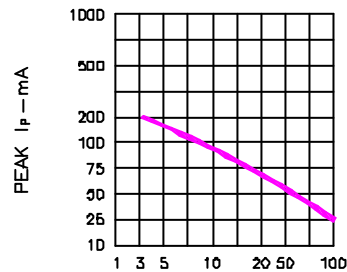
T_A MBIENT TEMPERATURE °C

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

PEAK I_P—mA

DUTY CYCLE %