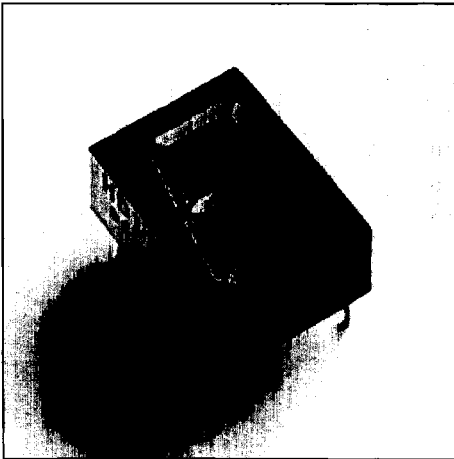


# SIEMENS

**RED HD1105R/1107R**  
**SUPER-RED HD1105O/1107O**  
**GREEN HD1105G/1107G**  
**Common Anode/Common Cathode**  
**0.39" (10 mm) Seven Segment Numeric Display**



### FEATURES

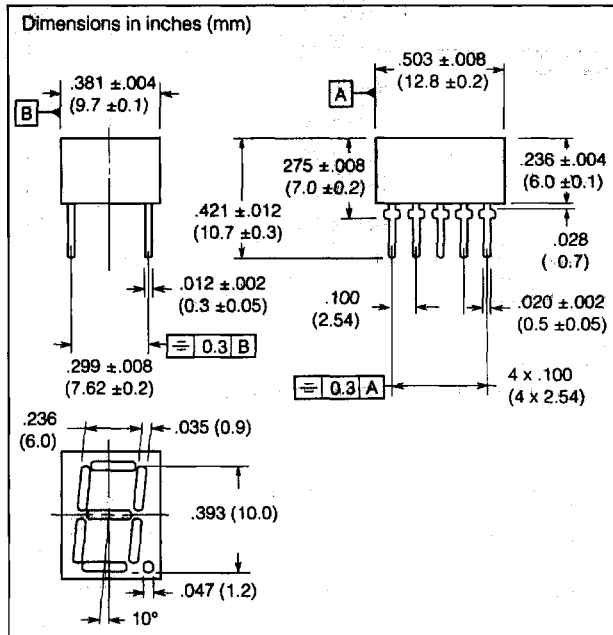
- Rugged Encapsulated Package
- 0.39" (10 mm) Digit Height
- Choice of Colors: Red, Super-Red, Green
- Common Anode or Common Cathode
- Wide Viewing
- Intensity Coded for Display Uniformity

### Description

The HD1105X/1107X are displays with 0.39 inch (10 mm) digits with either a common anode or common cathode and a right hand decimal point.

These displays were designed for viewing distances of up to 10 feet and can be used in electronic instruments, point-of-sale systems, clocks, and other general industrial and consumer applications. All displays have a light gray face.

Contrast enhancement filters are recommended for use with these displays.



### Maximum Ratings

Operating Temperature ( $T_{OP}$ )	.....	0°C to +85°C
Storage Temperature ( $T_{STG}$ )	.....	-40°C to +85°C
Lead Soldering Temperature, 2 mm from base ( $T_S$ ) $t_S=3$ s	.....	260°C
Peak Forward Current per Segment or DP <sup>(1)</sup> ( $I_{FM}$ ) $t_p \leq 10$ $\mu$ s	.....	
HD1105/7R	.....	500 mA
HD1105/7O/G	.....	150 mA
DC Forward Current per Segment or DP <sup>(2)</sup> ( $I_F$ )	.....	
HD1105/7R	.....	30 mA
HD1105/7O/G	.....	20 mA
Reverse Voltage per Segment or DP ( $V_R$ )	.....	6 V
Total Power Dissipation ( $P_{TOT}$ ) $T_A \leq 45^\circ\text{C}$	.....	80 mW

### Notes:

1. Do not exceed maximum average current per segment (see graph of permissible pulse handling capability).
2. Derate maximum average current above  $T_A=75^\circ\text{C}$  at 0.5 mA/°C per segment.

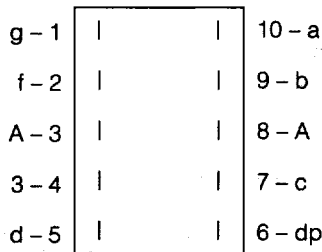
See graph numbers 1A, 2A, 3A, 5A, 6A, 8C, 8D, 9B, 11B at the end of this section.

**Characteristics (T<sub>A</sub>=25°C)**

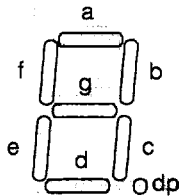
Parameter	Symbol	Values			Unit	Condition	
		Min.	Typ.	Max.			
Luminous Intensity per Segment	HD1105/7R	I <sub>V</sub>	180	550		μcd	I <sub>F</sub> =10 mA
	HD1105/7O		1100	3500			
	HD1105/7G		1100	4000			
Peak Wavelength	HD1105/7R	λ <sub>PEAK</sub>		660		nm	I <sub>F</sub> =10 mA
	HD1105/7O			630			
	HD1105/7G			565			
Dominant Wavelength, Digit Average	HD1105/7R	λ <sub>DOM</sub>		645		nm	
	HD1105/7O		612	625			
	HD1105/7G		562	575			
Forward Voltage per Segment (1)	HD1105/7R	V <sub>F</sub>		1.6	2.0	V	I <sub>F</sub> =20 mA
	HD1105/7O			2.0	3.0		
	HD1105/7G			2.4	3.0		
Breakdown Voltage per Segment (1)		V <sub>BR</sub>	6	15		V	I <sub>F</sub> =10 μA
Thermal Resistance		R <sub>thJA</sub>			120	°C/W/seg.	

**Notes:**

1. AQL=0.4%.
2. Deviation of the absolute values within one digit I<sub>VMAX</sub>/I<sub>VMIN</sub> ≤ 2.

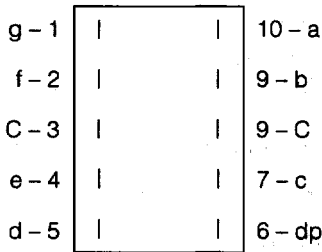


A = Common Anode

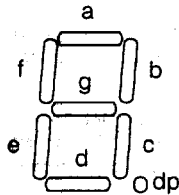


**HD1105**

- 1 Cathode G
- 2 Cathode F
- 3 Common Anode
- 4 Cathode E
- 5 Cathode D
- 6 Cathode DP
- 7 Cathode C
- 8 Common Anode
- 9 Cathode B
- 10 Cathode A



C = Common Cathode



**HD1107**

- 1 Anode G
- 2 Anode F
- 3 Common Cathode
- 4 Anode E
- 5 Anode D
- 6 Anode DP
- 7 Anode C
- 8 Common Cathode
- 9 Anode B
- 10 Anode A