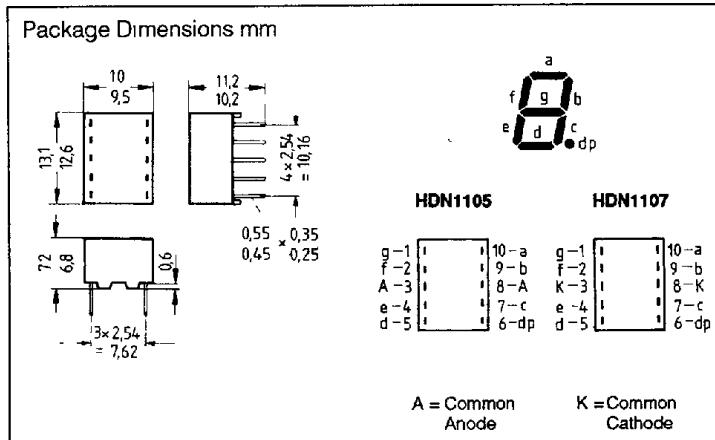
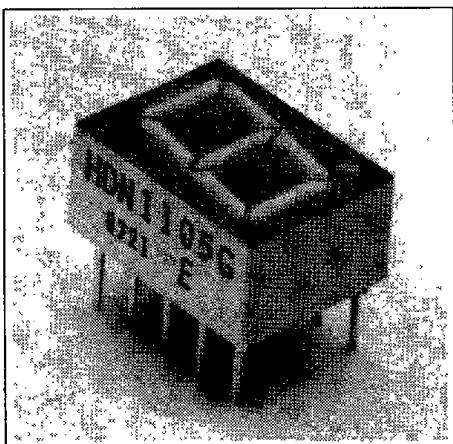


SIEMENS**SUPER-RED HDN1105/1107O F4K-33**
GREEN HDN1105/1107G**0.39" (10 mm) SEVEN SEGMENT NUMERIC DISPLAY
LOW CURRENT**
 Num Displays
Bar Graphs
Light Bars

FEATURES

- Current Consumption 2 mA
- Direct Drive by CMOS Microprocessor, Gate and LSTTL Modules
- Space Saving
- Lower Assembly Costs
- No Display and LED Driver Modules
- Good Readability in Unfavorable Lighting Conditions
- Climate-Proof
- High Packing Density
- Grey Package for Optimal Contrast
- Long Service Life
- Shock and Vibration Resistant

DESCRIPTION

The HDN1105/1107 are one digit, seven segment, low current LED displays. The character height is 10 mm. The displays are available in super-red and green. Applications include state-of-the-art industrial and consumer electronics, especially where low current consumption is required, e.g. portable appliances and battery-operated appliances.

Maximum Ratings

Total Power Dissipation per Segment or Dot ¹⁾ ($T_A=75^\circ\text{C}$) (P_{TOT})	20 mW
Operating and Storage Temperature Range ($T_{\text{OP}}, T_{\text{STG}}$)	-40°C to +85°C
Forward Current per Segment or Dot ¹⁾ (I_F)	7.5 mA
Surge Current per Segment ¹⁾ ($t_p \leq 10 \mu\text{s}, D \leq 0.005$) (I_{FV})	150 mA
Reverse Voltage (V_R)	5 V
Thermal Resistance (R_{THA})	135 K/W
Junction Temperature (T_J)	100°C

Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Super-Red	Green	Unit
Wavelength at Peak Emission ($I_F=2 \text{ mA}$)	λ_{PEAK}	635	565	nm
Dominant Wavelength ($I_F=2 \text{ mA}$)	λ_{DOM}	628	567	nm
Spectral Bandwidth @ 50% I_V ($I_F=2 \text{ mA}$)	Δ_λ	45	25	nm
Forward Voltage ($I_F=2 \text{ mA}$)	V_F	1.8 (≤ 2.6)	1.9 (≤ 2.6)	V
Reverse Current per Segment ($V_R=5 \text{ V}$)	I_R	0.01 (≤ 10)	0.01 (≤ 10)	μA
Capacitance per Segment ($V_R=0 \text{ V}, f=1 \text{ MHz}$)	C_0	3	15	pF
Switching Times				
($I_F=25 \text{ mA}, t_p=1 \mu\text{s}$)				
Rise Time from 10% to 90%	t_R	200	450	ns
Fall Time from 90% to 10%	t_f	150	200	ns
Luminous Intensity per Segment ²⁾ ($I_F=2 \text{ mA}$)	I_V	600	600	μcd

Notes:

1 This value applies to an ambient temperature of $T_A \leq 75^\circ\text{C}$

2 Deviation of the absolute values within one digit $\frac{I_{V \text{ MAX}}}{I_{V \text{ MIN}}} \leq 2$

See graph numbers 1, 2, 3B, 4B, 5B, 6D, 9, 11B on pages 25 – 27