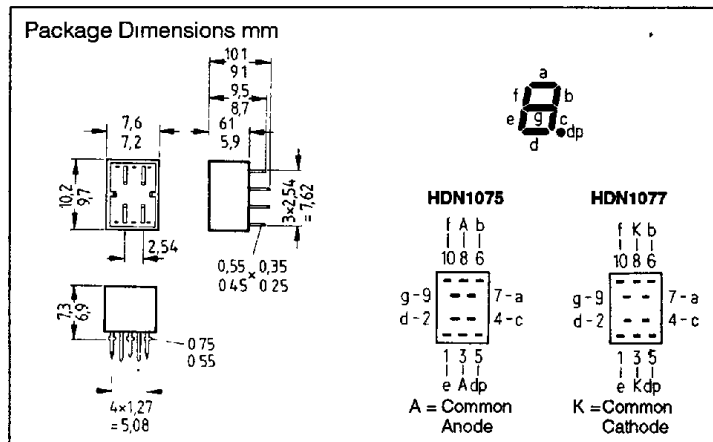
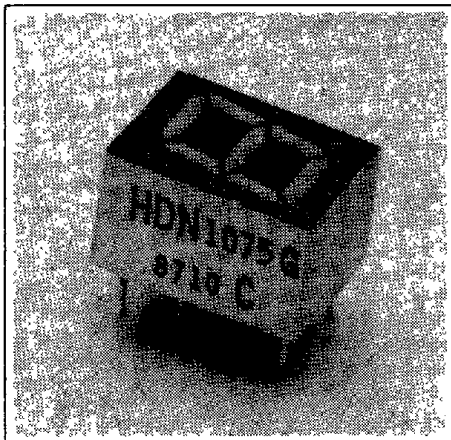


SIEMENS

SUPER-RED HDN1075/10770
GREEN HDN1075/1077G

0.28" (7 mm) SEVEN SEGMENT NUMERIC DISPLAY
LOW CURRENT

T-41-33



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 HDN1075/1077 are one digit, seven segment, low current LED displays. The character height is 7 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 =70°C) (P _{TOT})	20 mW
Operating and Storage Temperature Range (T _{OP} , T _{STG})	-40°C to +85°C
Forward Current per Segment or Dot ¹⁾ (I _F)	7.5 mA
Surge Current per Segment ¹⁾ (I _S ≤ 10 μs, D ≤ 0.005) (I _{SM})	150 mA
Reverse Voltage (V _R)	5 V
Thermal Resistance (R _{THMAX})	170 K/W
Junction Temperature (T _J)	100°C

Characteristics (T_A=25°C)

Parameter	Symbol	Super-Red	Green	Unit
Wavelength at Peak Emission (I _F =2 mA)	λ _{PEAK}	635	565	nm
Dominant Wavelength (I _F =2 mA)	λ _{DOM}	628	567	nm
Spectral Bandwidth @ 50% I _F (I _F =2 mA)	Δλ	45	25	nm
Forward Voltage (I _F =2 mA)	V _F	1.8 (≤2.6)	1.9 (≤2.6)	V
Reverse Current per Segment (V _R =5 V)	I _R	0.01 (≤10)	0.01 (≤10)	μA
Capacitance per Segment (V _R =0 V, f=1 MHz)	C ₀	3	15	pF
Switching Times (I _F =25 mA, t _r =1 μs)				
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 mA)	I _V	600	600	μcd

Notes:

1. This value applies to an ambient temperature of T_A ≤ 70°C

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

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