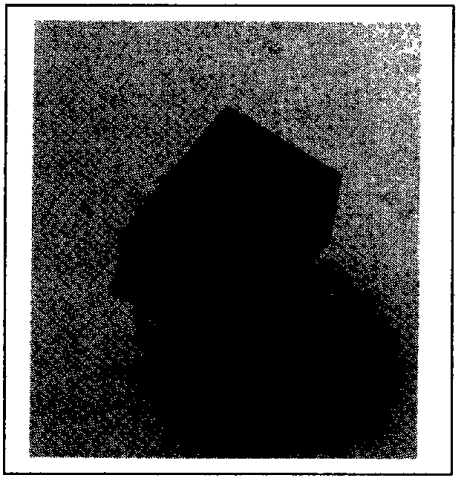
SIEMENS

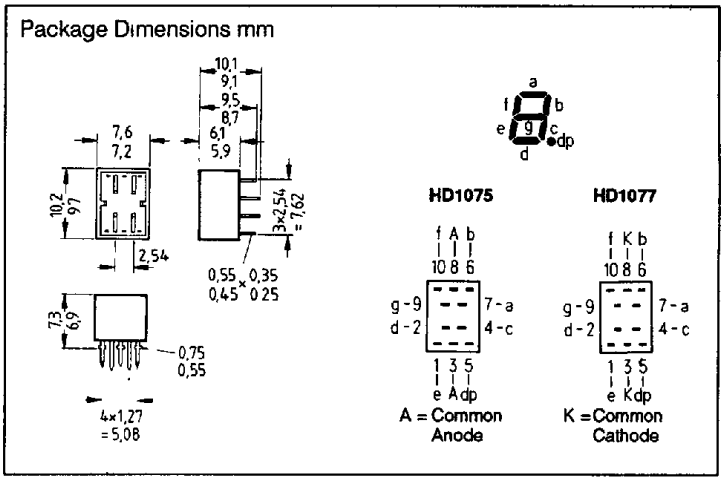
RED HD1075R/1077R
SUPER-RED HD1075O/1077O
YELLOW HD1075Y/1077Y
GREEN HD1075G/1077G

0.28" (7 mm) SEVEN SEGMENT NUMERIC DISPLAY

T-41-33



Package Dimensions mm



FEATURES

- **Rugged Encapsulated Package**
- **0.28 Inch (7 mm) Digit Height**
- **Choice of Colors**
- **Common Anode or Common Cathode**
- **Wide Viewing**
- **Intensity Coded for Display Uniformity**

DESCRIPTION

The HD1075X/1077X are displays with 0.28 inch (7 mm) digits with either a common anode or common cathode and a right hand decimal point.

These displays have good viewing and can be used in electronic instruments, point-of-sale systems, clocks, and other general industrial and consumer applications. All displays have a light grey face.

Contrast enhancement filters are recommended for use with all displays.

Product	Color	Description
HD1075R	Red	Common Anode, Right Decimal
HD1077R	Red	Common Cathode, Right Decimal
HD1075O	Super-Red	Common Anode, Right Decimal
HD1077O	Super-Red	Common Cathode, Right Decimal
HD1075Y	Yellow	Common Anode, Right Decimal
HD1077Y	Yellow	Common Cathode, Right Decimal
HD1075G	Green	Common Anode, Right Decimal
HD1077G	Green	Common Cathode, Right Decimal

Maximum Ratings

Power Dissipation per Segment [1] (P_{TOT}) ..... 40 mW
Operating and Storage Temperature (T_A, T_{STG}) ..... -40°C to +85°C
Forward Current per Segment [1] (I_F) ..... 15 mA
Surge Forward Current per segment [1] ($t_p \leq 10$ µs, I_{FM}) ..... 150 mA
Reverse Voltage (V_R) ..... 6 V
Thermal Resistance ($R_{TH\,JA}$) ..... 170 K/W
Junction Temperature (T_J) ..... 100°C

Note:
1 T_A=45°C

See graph numbers 1, 2, 3A, 4A, 5A, 6A, 7, 8, 9, 10 on pages 25 – 27.

T-41-33

Characteristics (T_A=25°C)

Parameter	Symbol	HD1075/7R Red	HD1075/7O Super-Red	HD1075/7Y Yellow	HD1075/7G Green	Unit
Wavelength at Peak Emission (I_F=10 mA)	λ_{PEAK}	660	635	586	565	nm
Dominant Wavelength	λ_{DOM}	645	628	590	567	nm
Spectral Bandwidth @ 50% I_V (I_F=10 mA)	Δ_λ	35	45	45	25	nm
Forward Voltage (I_F=10 mA)	V_F	1.6 (≤2.0)	2.0 (≤2.6)	2.0 (≤2.6)	2.0 (≤2.6)	V
Reverse Current per Segment (V_R=6 V)	I_R	0.01 (≤10)	0.01 (≤10)	0.01 (≤10)	0.01 (≤10)	µA
Capacitance per Segment (V_R=0 V, f=1 MHz)	C_0	25	12	10	15	pF
Rise Time (typ.)	t_R	120	300	300	450	ns
Fall Time (typ.)	t_F	50	150	150	200	ns
Luminous Intensity per Segment [1] (I_F=10 mA)	µcd	450	1800	600	900	µcd

Note:
1 Deviation of the absolute values within one digit $\frac{I_{V\,MAX}}{I_{V\,MIN}} \leq 2$