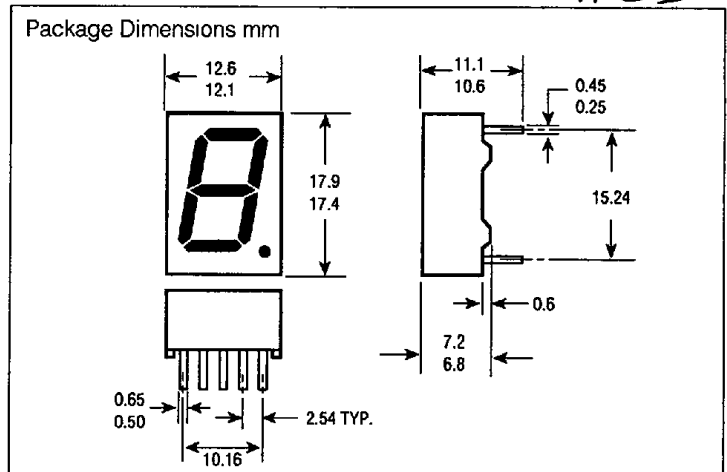
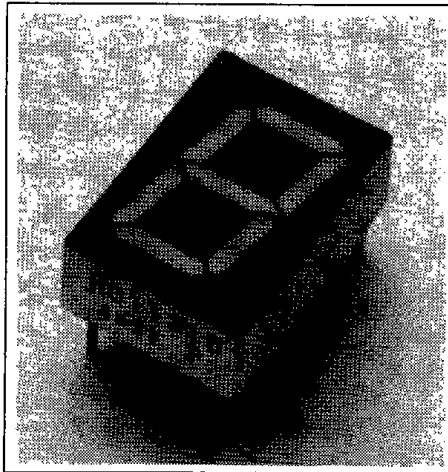


**SIEMENS**

**RED HD1131R/1133R**  
**SUPER-RED HD1131O/1133O**  
**YELLOW HD1131Y/1133Y**  
**GREEN HD1131G/1133G**

**0.51" (13 mm) SEVEN SEGMENT NUMERIC DISPLAY****FEATURES**

- Rugged Encapsulated Package
- Large 0.51 Inch (13 mm) Digit Height
- Choice of Colors
- Common Anode or Common Cathode
- Wide Viewing
- Intensity Coded for Display Uniformity

**DESCRIPTION**

The 0.51 inch (13 mm) digit height series of HD1131/1133 Seven Segment Displays offer the choice of common anode or common cathode versions with right hand decimal point.

These displays were designed for viewing distances of up to 20 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 grey face.

Contrast enhancement filters are recommended for use with all displays.

**Product**

HD1131R  
 HD1133R  
 HD1131O  
 HD1133O  
 HD1131Y  
 HD1133Y  
 HD1131G  
 HD1133G

**Color**

Red  
 Red  
 Super-Red  
 Super-Red  
 Yellow  
 Yellow  
 Green  
 Green

**Description**

Common Anode, Right Decimal  
 Common Cathode, Right Decimal  
 Common Anode, Right Decimal  
 Common Cathode, Right Decimal  
 Common Anode, Right Decimal  
 Common Cathode, Right Decimal  
 Common Anode, Right Decimal  
 Common Cathode, Right Decimal

**Maximum Ratings**

Power Dissipation per Segment <sup>1)</sup> ( $P_{TOT}$ )	60 mW
Operating and Storage Temperature ( $T_A$ , $T_{STG}$ )	-40°C to +85°C
Forward Current per Segment <sup>1)</sup> ( $I_F$ )	20 mA
Surge Current <sup>1)</sup> ( $t_p \leq 10 \mu s$ , $I_{FM}$ )	150 mA
Reverse Voltage ( $V_R$ )	6 V
Thermal Resistance ( $R_{THJA}$ )	115 K/W

**Note:**

<sup>1)</sup>  $T_A = 45^\circ\text{C}$

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

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

T-41-33

Parameter	Symbol	HD1131/3R Red	HD1131/3O Super-Red	HD1131/3Y Yellow	HD1131/3G Green	Unit
Wavelength at Peak						
Emission ( $I_F=10\text{ mA}$ )	$\lambda_{\text{PEAK}}$	660	635	586	565	nm
Dominant Wavelength	$\lambda_{\text{DOM}}$	645	628	590	567	nm
Spectral Bandwidth @ 50% $I_F$ ( $I_F=10\text{ mA}$ )	$\Delta\lambda$	35	45	45	25	nm
Forward Voltage ( $I_F=10\text{ mA}$ )	$V_F$	1.6 ( $\leq 2.0$ )	2.0 ( $\leq 2.6$ )	2.0 ( $\leq 2.6$ )	2.0 ( $\leq 2.6$ )	V
Reverse Current per Segment ( $V_R=6\text{ V}$ )	$I_R$	0.01 ( $\leq 10$ )	0.01 ( $\leq 10$ )	0.01 ( $\leq 10$ )	0.01 ( $\leq 10$ )	$\mu\text{A}$
Capacitance per Segment ( $V_R=0\text{ V}$ , $f=1\text{ MHz}$ )	$C_0$	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 <sup>1)</sup> ( $I_F=10\text{ mA}$ )	$\mu\text{cd}$	750	2900	1500	1500	$\mu\text{cd}$

## Note:

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

Num. Displays  
Bar Graphs  
Light Bars