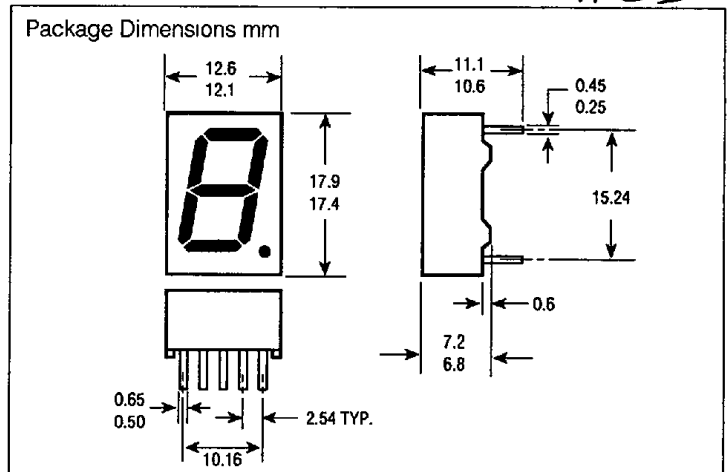
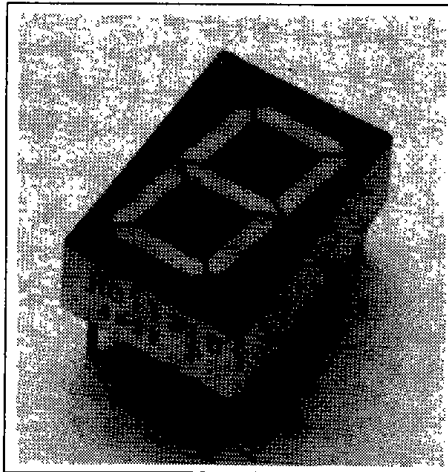


SIEMENS

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

Note:

¹⁾ $T_A = 45^\circ\text{C}$

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 ($I_F = 10\text{ mA}$)	λ_{PEAK}	660	635	586	565	nm
Dominant Wavelength	λ_{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 (≤ 2.0)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	V
Reverse Current per Segment ($V_R = 6\text{ V}$)	I_R	0.01 (≤ 10)	0.01 (≤ 10)	0.01 (≤ 10)	0.01 (≤ 10)	μA
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 ¹⁾ ($I_F = 10\text{ mA}$)	μcd	750	2900	1500	1500	μcd

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