

# High Brightness 1.2-inch 7-Segment Numeric LED Displays

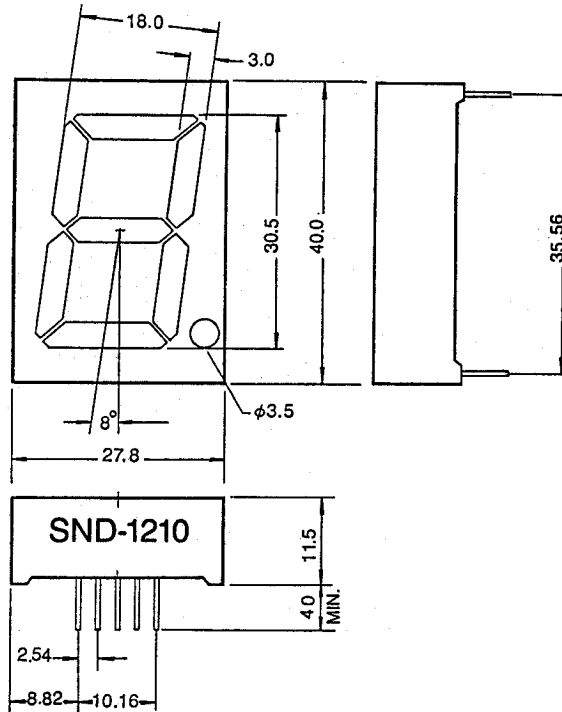
# SND-1210 SND-1217

## GENERAL DESCRIPTION

The SND-1210 and the SND-1217 series are 1.2 inch (30.5mm) character height epoxy resin molded 7 segment LED displays and available in red, orange and yellow-green emitting colors.  
The standard unit is constructed with black face and milky white segment color.

## PACKAGE DIMENSIONS

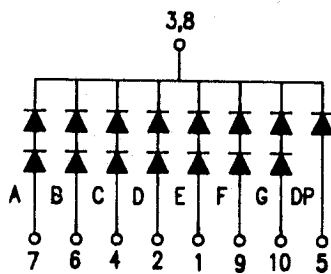
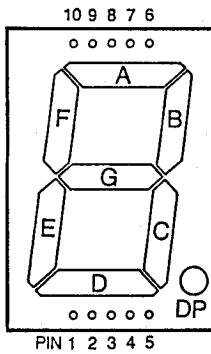
SCALE 1:1 (mm)



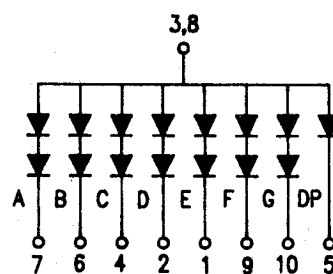
## FEATURES

1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption
4. Solid state stability and long operation life
5. Cathode common (SND-1210) and anode common (SND-1217) types available

## PIN ARRANGEMENT (Top View)



SND-1210  
(Cathode Common)



SND-1217  
(Anode Common)

**三光半導体株式会社**  
**SAM KWANG SEMICONDUCTOR CO., LTD.**

803 Silla Techno Vil., 39-3 Dang-dong Kunpo-City Kyungki-do, Korea,  
TEL:031-456-1444/1484, FAX:031-456-4224

### Red SND 1210/1217UR (GaAlAs)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	600	mW
Power dissipation/Seg	80	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	3.8	4.0	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 10V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	1000	2000	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	660	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	20	—	nm

### Orange SND 1210/1217SR (GaAsP/GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	600	mW
Power dissipation/Seg	80	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	4.0	4.4	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 10V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	600	1200	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	35	—	nm

### Yellow-green SND 1210/1217UG (GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	600	mW
Power dissipation/Seg	80	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	4.2	4.6	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 10V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	700	1300	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	30	—	nm

\* Pulse Width . . . . . 1 ms  
Duty Cycle . . . . . 1/5