

# High Reliability 0.8-inch Alpha -Numeric LED Displays

# SNA-8000 SNA-8007

## GENERAL DESCRIPTION

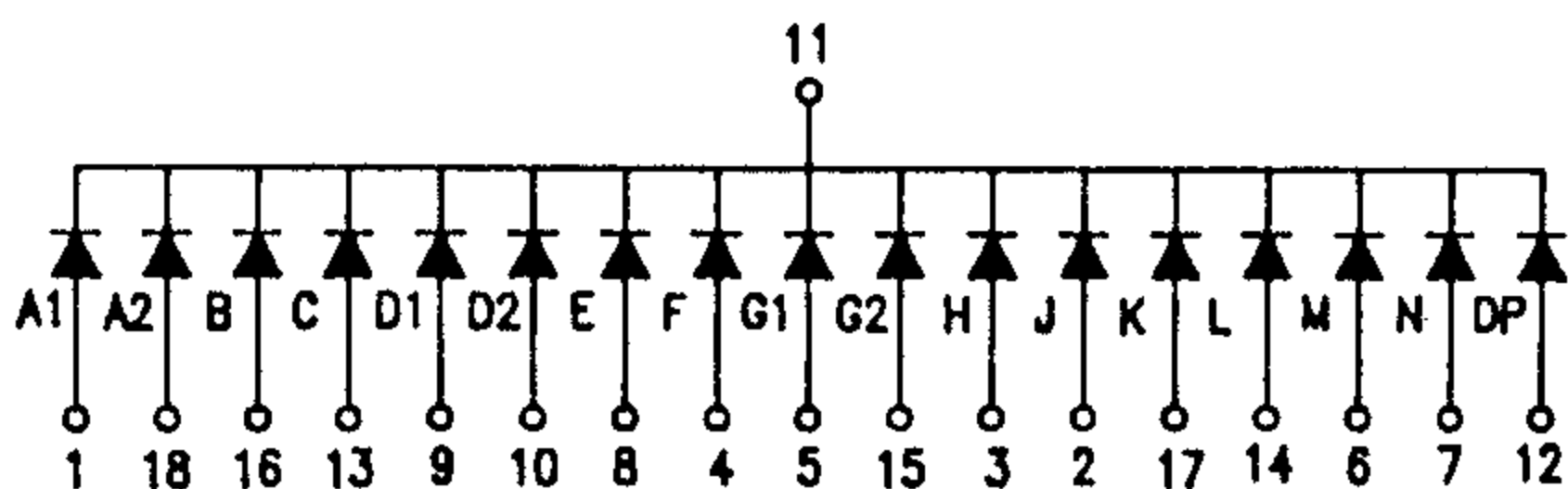
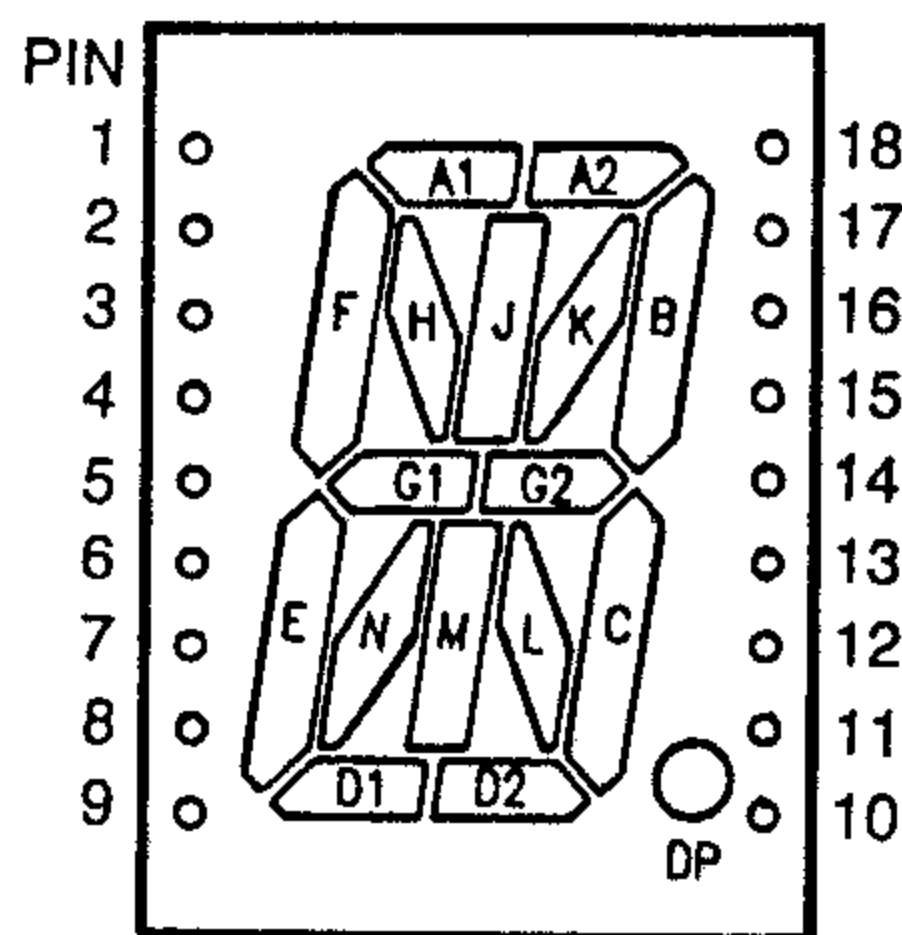
The SNA-8000 and SNA-8007 series are a high reliability epoxy resin molded alpha-numeric LED displays of which character height is 0.8 inch (20.3 mm) and available in red, orange and yellow-green emitting colors. The standard units are constructed with black face and milky white segment color.

## PACKAGE DIMENSIONS

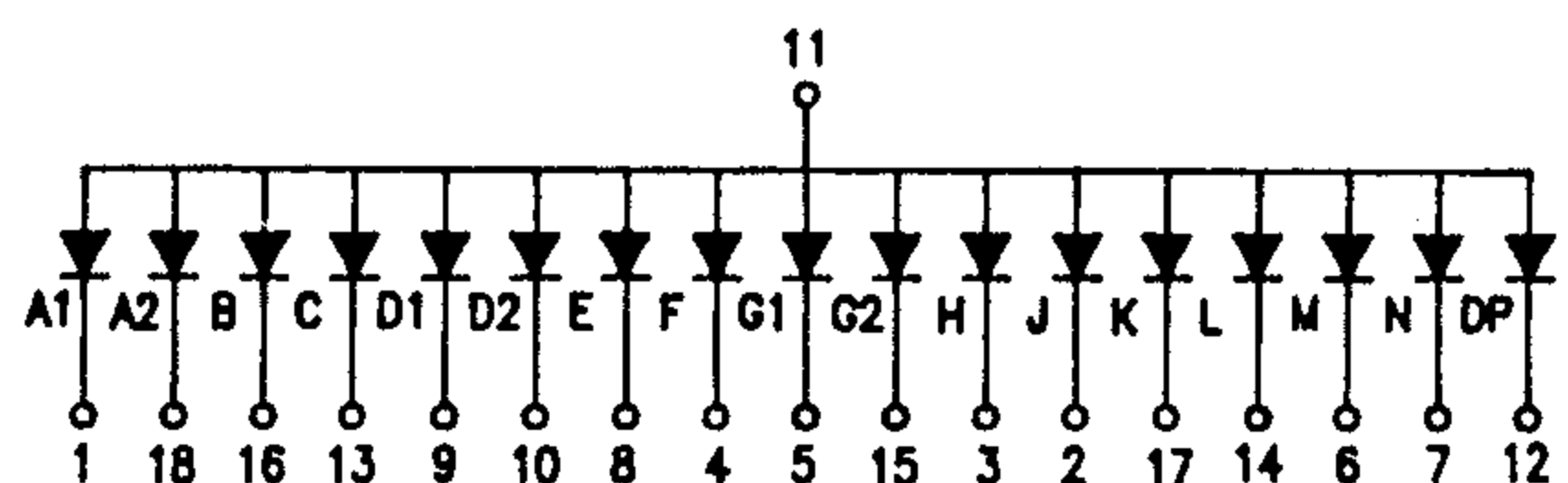
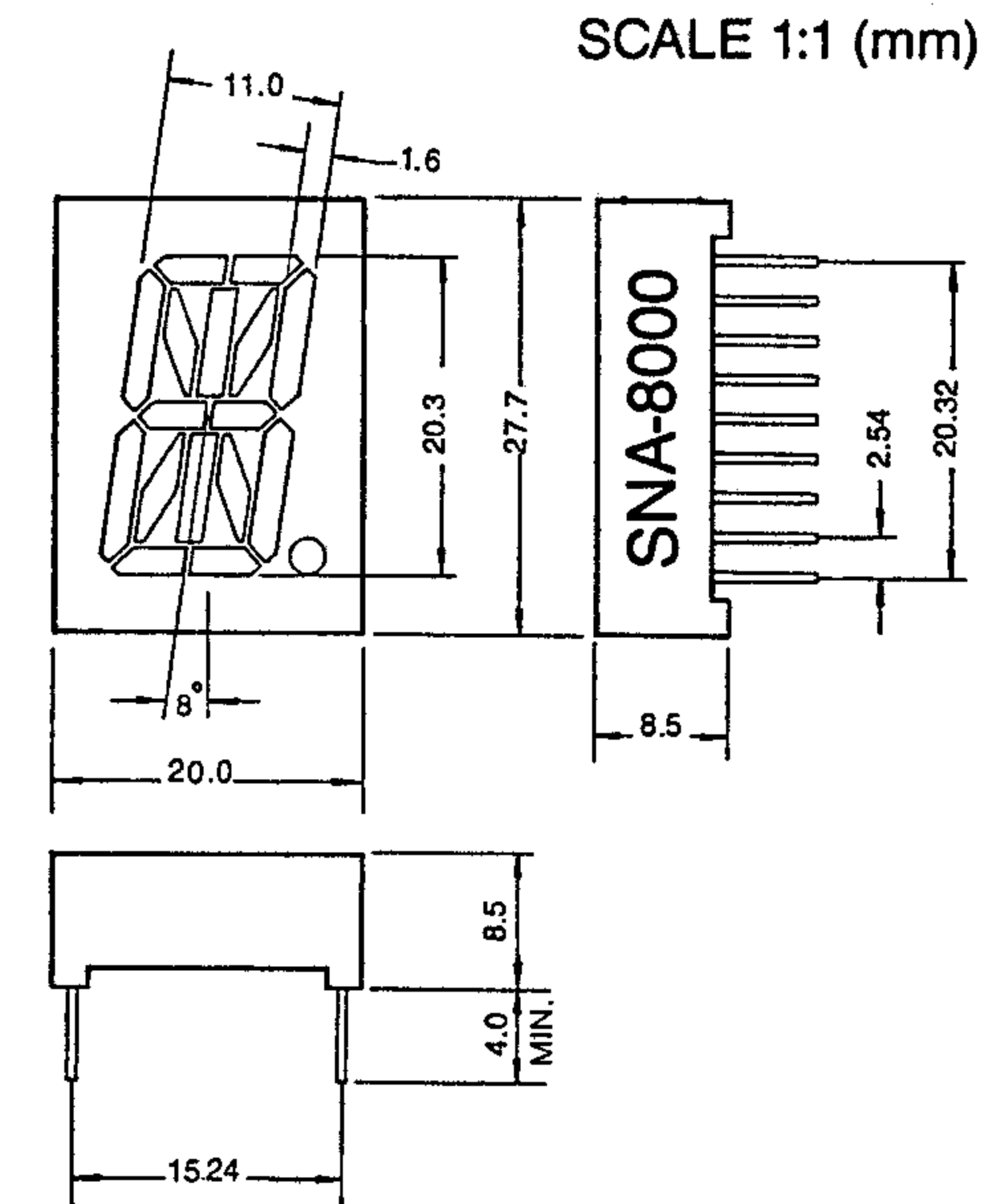
## FEATURES

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 (SNA8000) and anode common (SNA8007) types available

## PIN ARRANGEMENT (Top View)



SNA-8000 (Cathode Common)



SNA-8007 (Anode Common)

**三光半導體株式會社**  
**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 SNA 8000/8007UR (GaAlAs)

Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Power dissipation/Total	680	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	$V_F$	$I_F = 10\text{mA}$	—	1.9	2.1	V
Reverse current/Seg	$I_R$	$V_R = 4\text{V}$	—	—	10	$\mu\text{A}$
Luminous intensity/digit	$I_V$	$I_F = 10\text{mA}$	1300	2000	—	$\mu\text{cd}$
Peak wavelength	$\lambda_P$	$I_F = 10\text{mA}$	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	20	—	nm

### Orange SNA 8000/8007SR (GaAsP/GaP)

Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Power dissipation/Total	680	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	$V_F$	$I_F = 10\text{mA}$	—	2.0	2.2	V
Reverse current/Seg	$I_R$	$V_R = 4\text{V}$	—	—	10	$\mu\text{A}$
Luminous Intensity/digit	$I_V$	$I_F = 10\text{mA}$	500	1000	—	$\mu\text{cd}$
Peak wavelength	$\lambda_P$	$I_F = 10\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	35	—	nm

### Yellow-green SNA 8000/8007UG (GaP)

Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Power dissipation/Total	680	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	$V_F$	$I_F = 10\text{mA}$	—	2.1	2.3	V
Reverse current/Seg	$I_R$	$V_R = 4\text{V}$	—	—	10	$\mu\text{A}$
Luminous intensity/digit	$I_V$	$I_F = 10\text{mA}$	600	1300	—	$\mu\text{cd}$
Peak wavelength	$\lambda_P$	$I_F = 10\text{mA}$	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

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