

High Reliability 1.2-inch Alpha - Numeric LED Displays

SNA-12000 SNA-12007

GENERAL DESCRIPTION

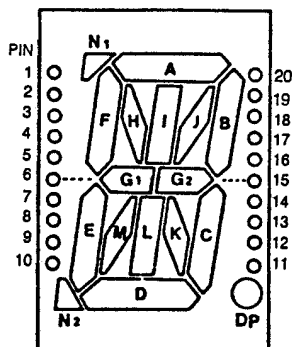
The SNA-12000 and SNA-12007 series are a high reliability epoxy resin molded alpha-numeric LED displays of which character height is 1.2 inch (30.5 mm) and available in three emitting colors; red, orange and yellow-green. The standard unit is constructed with black face and milky white segment color.

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 (SNA-12000) and anode common (SNA-12007) types available

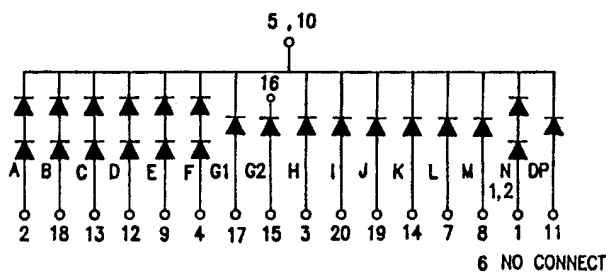
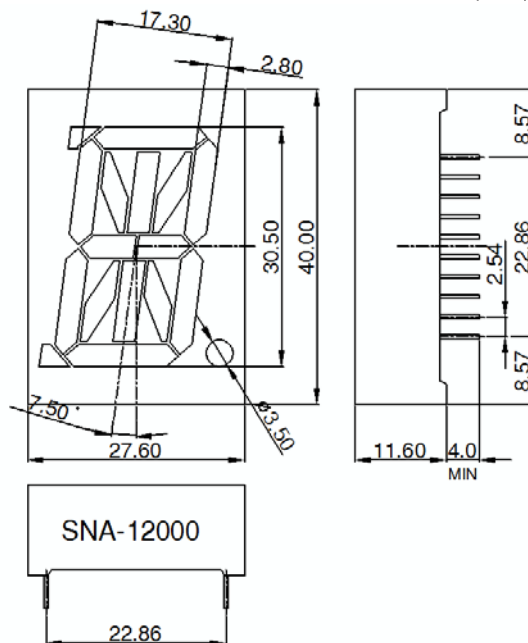
PIN ARRANGEMENT

(Top View)

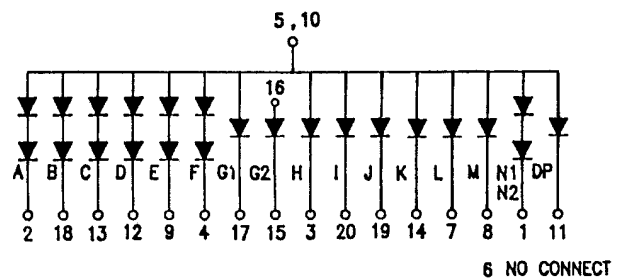


PACKAGE DIMENSIONS

SCALE 1:1 (mm)



SNA-12000 (Cathode Common)



SNA-12007 (Anode Common)



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Red SNA 12000/12007UR (GaAlAs)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	920	mW
Power dissipation/Seg	40 / 80	mW
Forward current	10	mA
Peak forward current	60*	mA
Reverse voltage	4 / 10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

Electrical/Optical Characteristics (T_a = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage	1 Chip	I _F = 10mA	—	1.9	2.1	V
	2 Chip					
Reverse current	1 Chip	V _R = 4V	—	—	10	μA
	2 Chip	V _R = 10V	—	—	10	
Luminous intensity/digit	I _v	I _F = 10mA	1000	2000	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	660	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	20	—	nm

Orange SNA 12000/12007SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	920	mW
Power dissipation/Seg	40 / 80	mW
Forward current	10	mA
Peak forward current	60*	mA
Reverse voltage	4 / 10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

Electrical/Optical Characteristics (T_a = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage	1 Chip	I _F = 10mA	—	2.0	2.2	V
	2 Chip					
Reverse current	1 Chip	V _R = 4V	—	—	10	μA
	2 Chip	V _R = 10V	—	—	10	
Luminous intensity/digit	I _v	I _F = 10mA	800	1500	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	35	—	nm

Yellow-green SNA 12000/12007UG (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	920	mW
Power dissipation/Seg	40 / 80	mW
Forward current	10	mA
Peak forward current	60*	mA
Reverse voltage	4 / 10	V
Operating temperature	- 25 ~ + 85	°C
Storage temperature	- 55 ~ + 100	°C

Electrical/Optical Characteristics (T_a = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage	1 Chip	I _F = 10mA	—	2.1	2.2	V
	2 Chip					
Reverse current	1 Chip	V _R = 4V	—	—	10	μA
	2 Chip	V _R = 10V	—	—	10	
Luminous intensity/digit	I _v	I _F = 10mA	700	1500	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	30	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5