

High Reliability 0.5-inch 7-Segment Numeric Displays

SND-510 SND-517

GENERAL DESCRIPTION

The SND-510 and SND-517 series are a high reliability epoxy resin molded 7 segment LED displays of which character height is 0.5-inch (12.7mm) and available in red, green, orange and yellow-green. The standard units are constructed with black face and milky white segment color.

Actual size

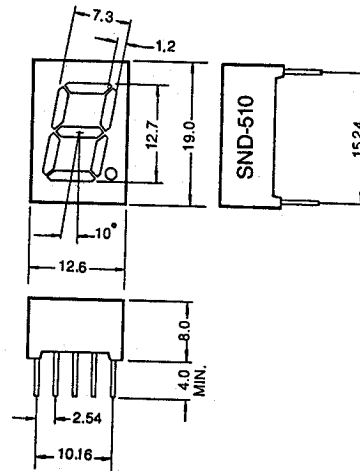


FEATURES

1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption; directly drive with I.C
4. Solid state reliability and long operation life
5. Cathode common (SND-510) and anode common (SND-517) types available

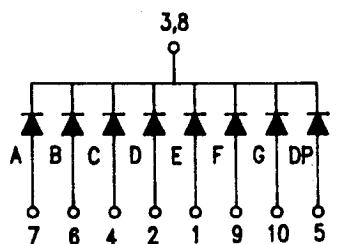
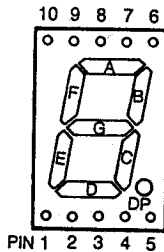
PACKAGE DIMENSIONS

SCALE 1:1 (mm)

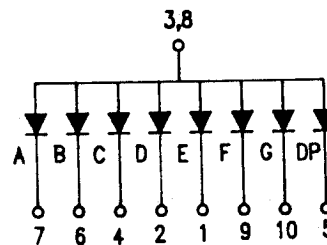


PIN ARRANGEMENT

(Top View)



SND-510 (Cathode Common)



SND-517 (Anode Common)



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Red SND 510/517R (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	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/Seg	V _F	I _F = 10mA	—	2.1	2.3	V
Reverse current /Seg	I _R	V _R = 4V	—	—	10	μA
Luminous intensity/digit	I _v	I _F = 10mA	300	800	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	700	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	100	—	nm

Green SND 510/517G (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	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/Seg	V _F	I _F = 10mA	—	2.1	2.3	V
Reverse current /Seg	I _R	V _R = 4V	—	—	10	μA
Luminous intensity/digit	I _v	I _F = 10mA	350	900	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	555	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	30	—	nm

Orange SND 510/517SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	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/Seg	V _F	I _F = 10mA	—	2.0	2.2	V
Reverse current/Seg	I _R	V _R = 4V	—	—	10	μA
Luminous intensity/digit	I _v	I _F = 10mA	700	1500	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	35	—	nm

Yellow-green SND 510/517UG (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	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/Seg	V _F	I _F = 10mA	—	2.1	2.3	V
Reverse current/Seg	I _R	V _R = 4V	—	—	10	μA
Luminous intensity/digit	I _v	I _F = 10mA	600	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