High Reliability 0.5-inch Dual-Digit 7-Segment Numeric Displays

SND-520
SND-527

GENERAL DESCRIPTION

The SND-520 and SND-527 series are a high reliability epoxy resin molded dual-digit 7-segment LED displays of which character height is 0.5-inch (12.7mm) and available four emitting colors; red, green, orange and yellow-green. The standard unit is constructed with black face and milky white segment color.

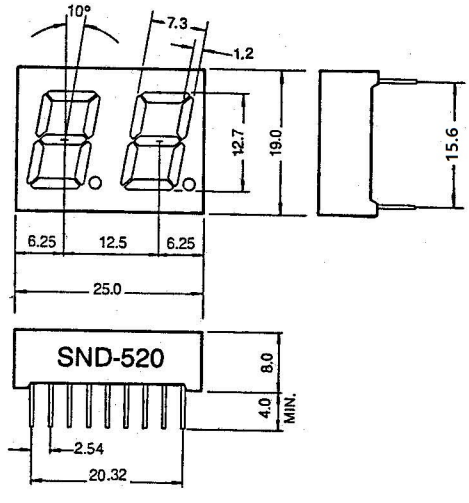
Actual size

FEATURES

1. High brightness with high contrast
2. Low power consmption;
   Directly drive with I.C
3. Excellent visibility;
   Uniform brightness
   Wide angle viewing
4. Solid state stability;
   Long operation life
5. Cathode common (SND-520) and anode common (SND-527) types available

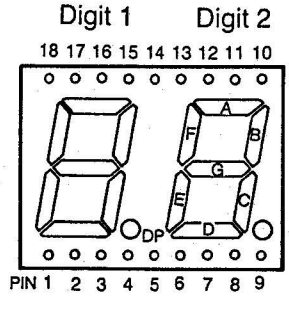
PACKAGE DIMENSIONS

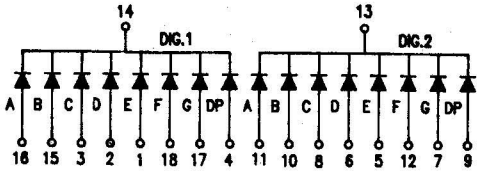
SCALE 1:1 (mm)



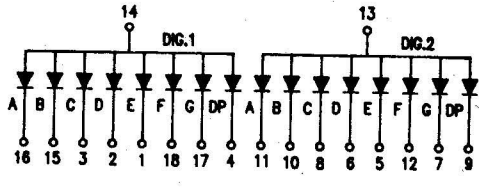
PIN ARRANGEMENT

(Top View)





SND-520 (Cathode Common)



SND-527 (Anode Common)

三光半導体株式會社
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 SND 520/527R (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	640	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	$\Delta\lambda$	I_F = 10mA	—	100	—	nm

Green SND 520/527G (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	640	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	$\Delta\lambda$	I_F = 10mA	—	30	—	nm

Orange SND 520/527SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	640	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	$\Delta\lambda$	I_F = 10mA	—	35	—	nm

Yellow-green SND 520/527UG (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	640	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	$\Delta\lambda$	I_F = 10mA	—	30	—	nm

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