

High Reliability 0.315-inch (8.0mm) Dual-Digit 7-Segment Numeric Displays

SND-320A SND-327A

GENERAL DESCRIPTION

The SND-320A and the SND-327A series are high performance epoxy resin molded 2-digit 7-segment LED displays for an application which space is at a premium. The character height is approximately 0.315-inch (8.0mm) and available in red, green, orange and yellow-green emitting colors.

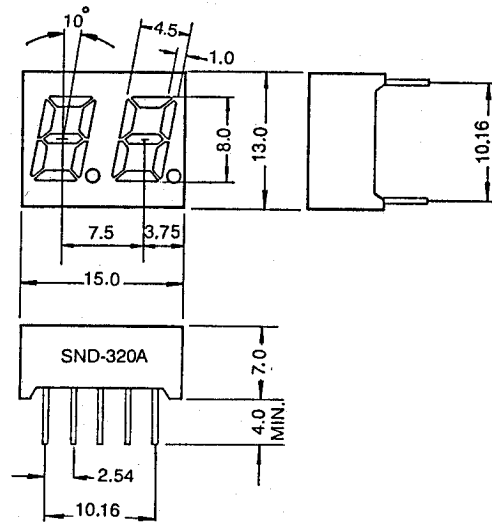
The standard unit is constructed with black face and milky white segment color.

Actual size

FEATURES

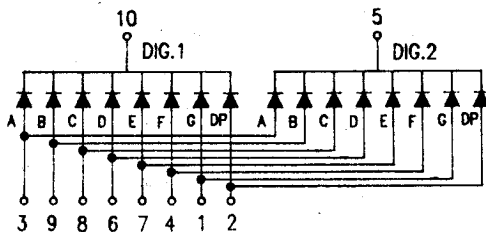
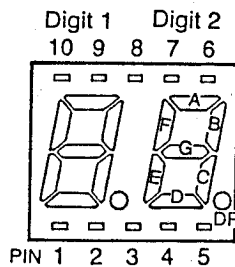
1. High brightness and high contrast
2. Excellent visibility;
Uniform brightness
Wide angle viewing
3. Low power consumption;
Directly drive with I.C
4. Solid state reliability
5. Cathode-common (SND-320A) and anode common (SND327A) types available

PACKAGE DIMENSIONS

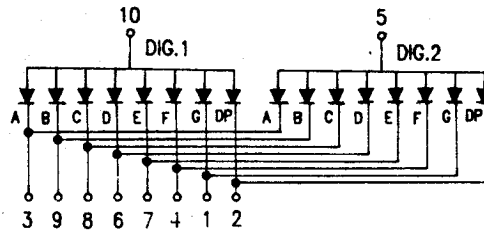


PIN ARRANGEMENT

(Top View)



SND-320A (Cathode Common)



SND-327A (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 SND 320A/327AR (GaP)

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

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	$^\circ\text{C}$
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	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	300	800	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	700	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	100	—	nm

Green SND 320A/327AG (GaP)

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

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	$^\circ\text{C}$
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	μA
Lumifous intensity/digit	I_v	$I_F = 10\text{mA}$	350	900	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	555	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

Orange SND 320A/327ASR (GaAsP/GaP)

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

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	$^\circ\text{C}$
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	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	700	1500	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	35	—	nm

Yellow-green SND 320A/327AUG (GaP)

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

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	$^\circ\text{C}$
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	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	600	1500	—	μcd
Peak wavelength	λ_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