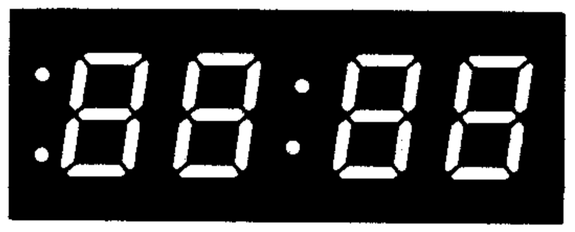
High Brightness 0.4-inch LED Clock Displays

SCD-440 SCD-447

GENERAL DESCRIPTION

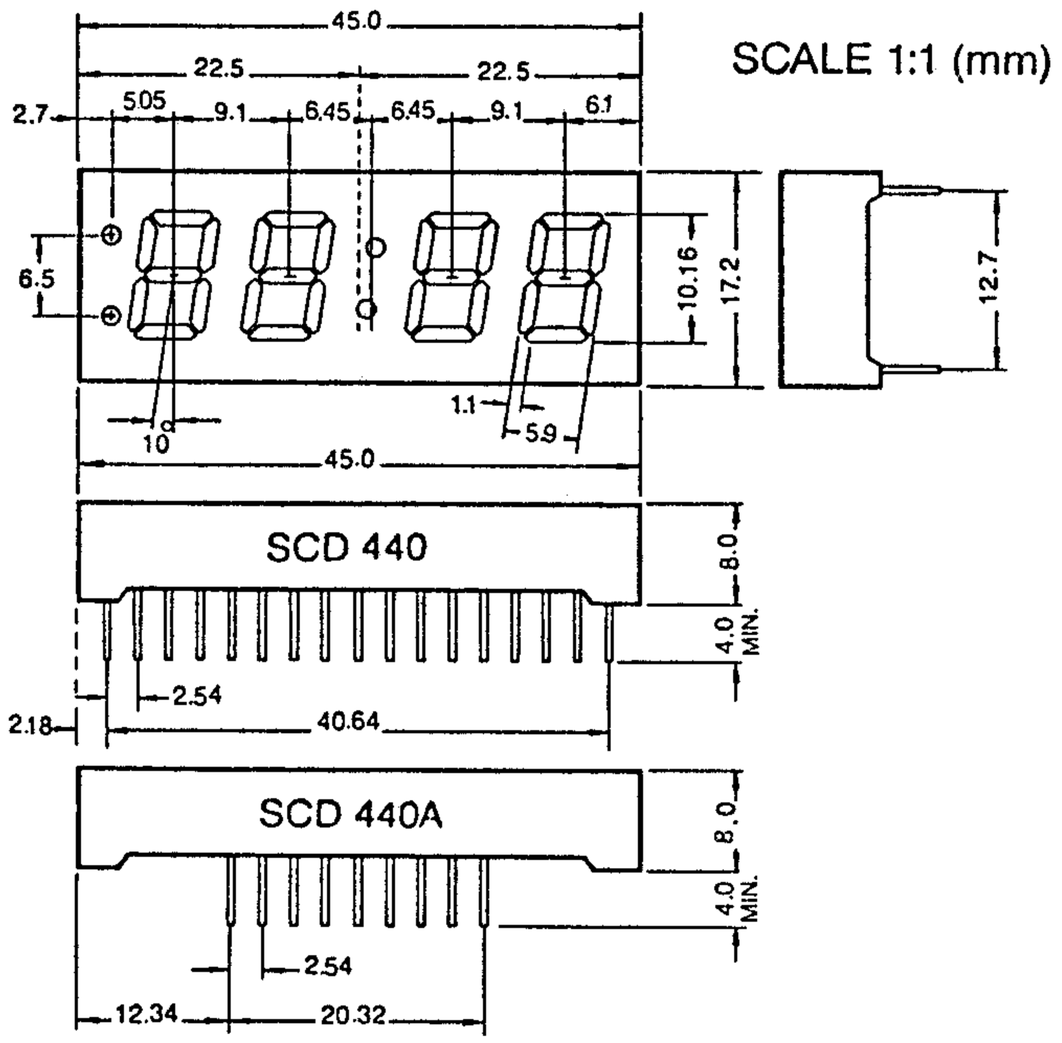
The SCD-440 and the SCD-447 series are high performance epoxy resin molded 4 digit LED clock displays which character height is 0.4-inch (10.16mm) and available in red, green, orange and yellow-green emitting colors. The standard unit is constructed with black face and milky white segment color.



FEATURES

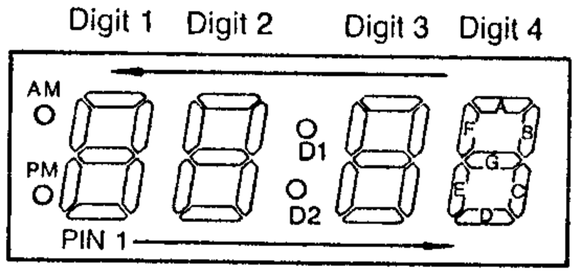
1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption; Directly drive with I.C
4. Solid state reliability and long operation life
5. Available common cathode (SCD-440) and common anode (SCD-447) configurations

PACKAGE DIMENSIONS

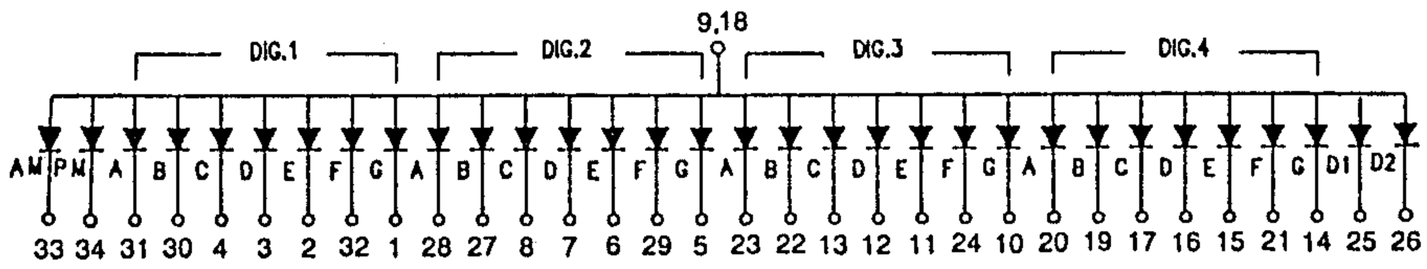


PIN ARRANGEMENT

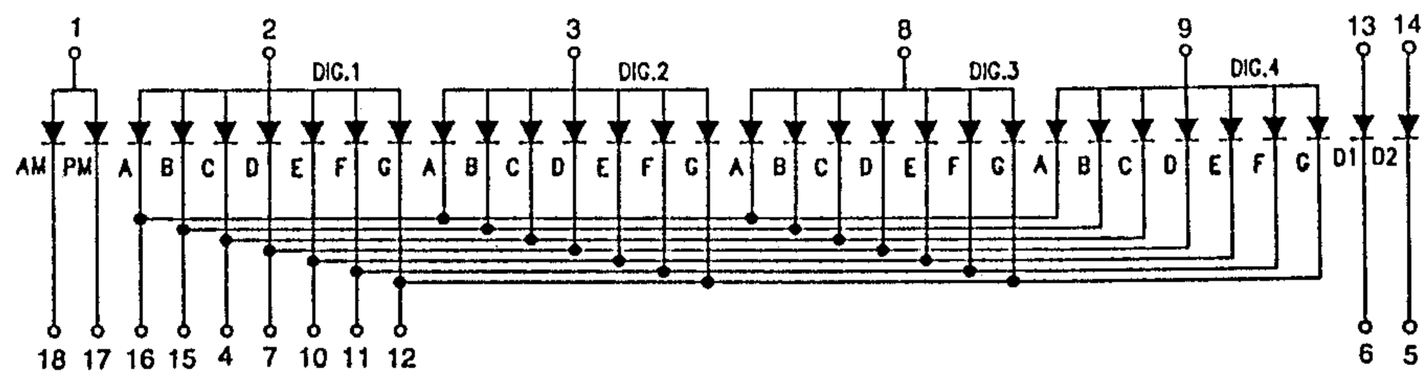
(Top View)



SCD-447
(Anode Common)



SCD-447A
(Anode Common)



SCD-440/ SCD-440A (Cathode Common) All diodes are reversed polarity

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Red SCD 440/447R (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1280	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 SCD 440/447G (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1280	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 SCD 440/447SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1280	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 SCD 440/447UG (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1280	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