

# High Reliability 2.28-inch 5mm 8x8 Dot Matrix LED Displays

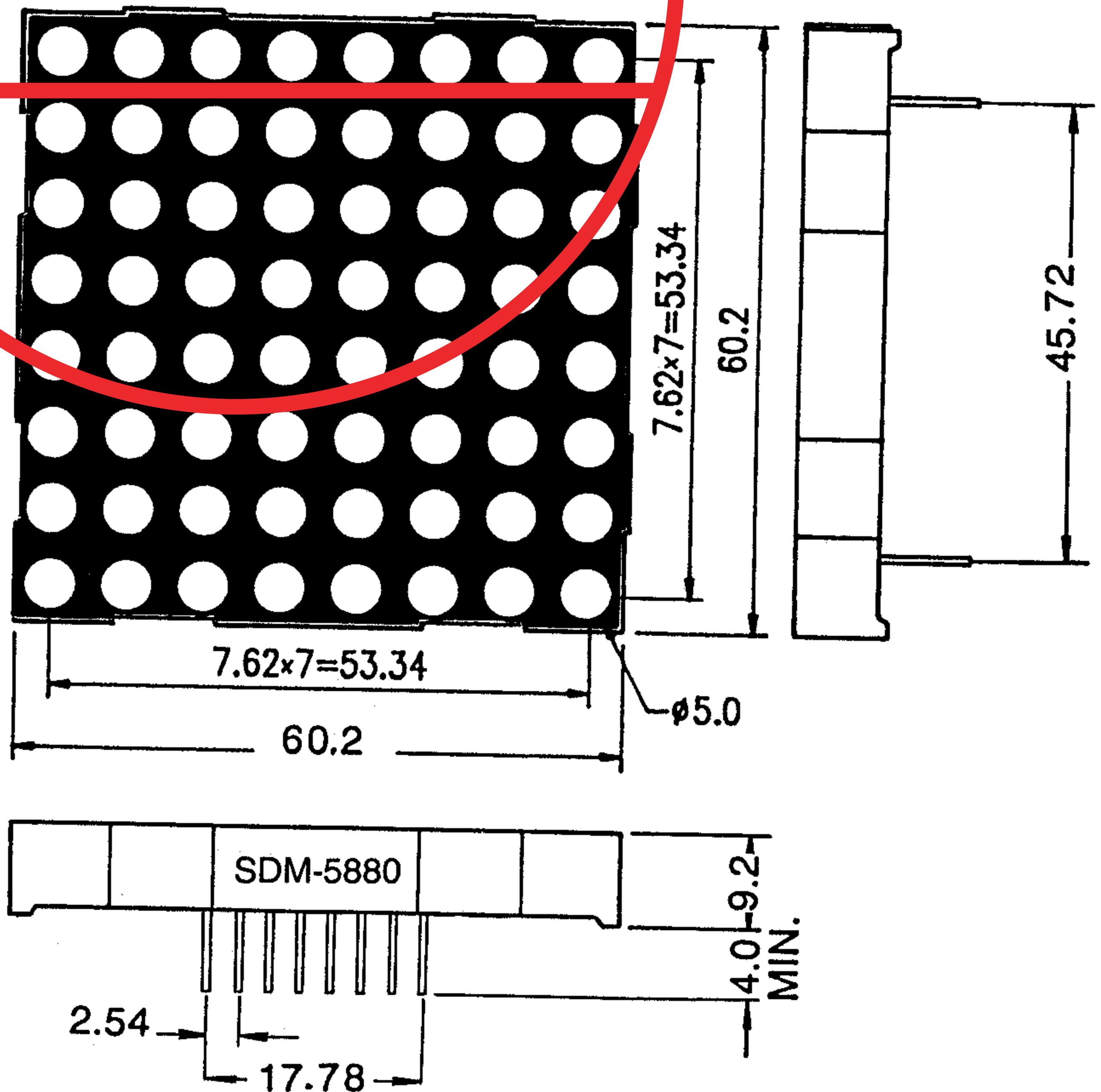
# SDM-5880 SDM-5887

## GENERAL DESCRIPTION

The SDM-5880 and the SDM-5887 series are an epoxy molded 2.28 in. (58.0mm) height, 5mm diameter and 8x8 dot matrix LED displays. The standard units are available in red, orange and yellow-green emitting colors.

## PACKAGE DIMENSIONS

SCALE 1:1 (mm)

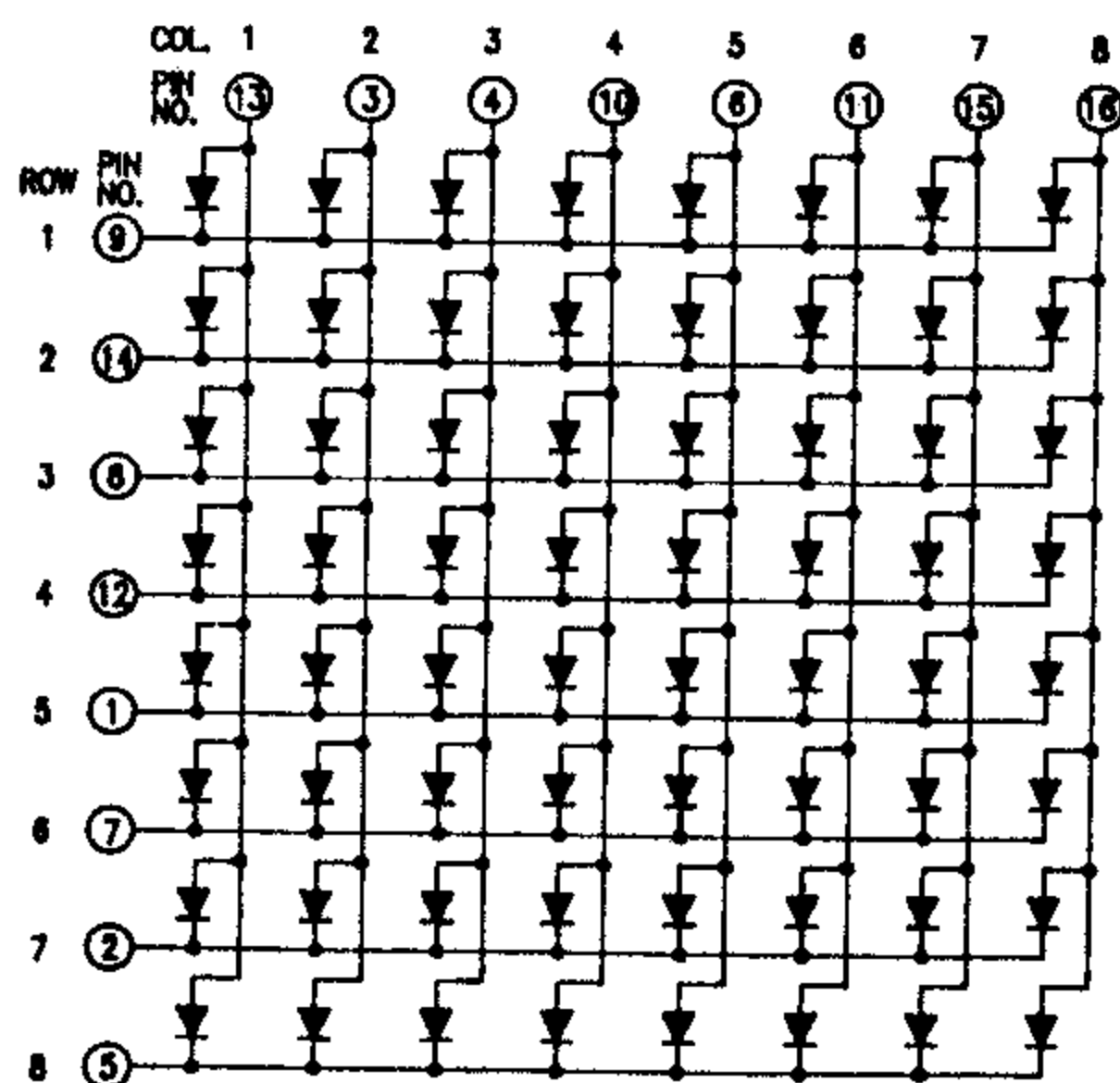
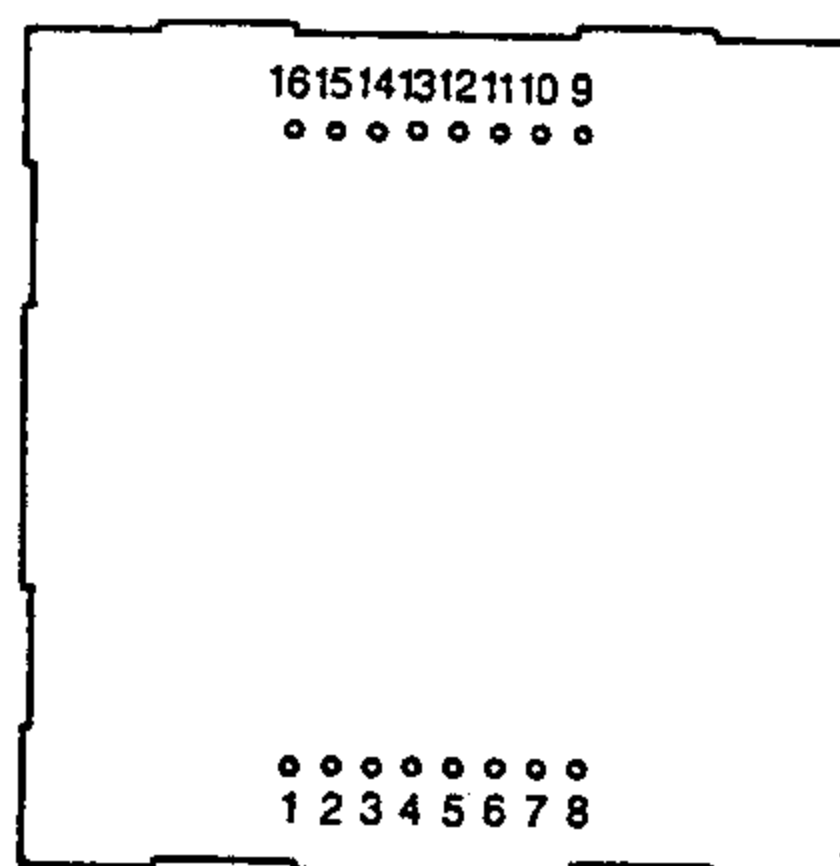


## FEATURES

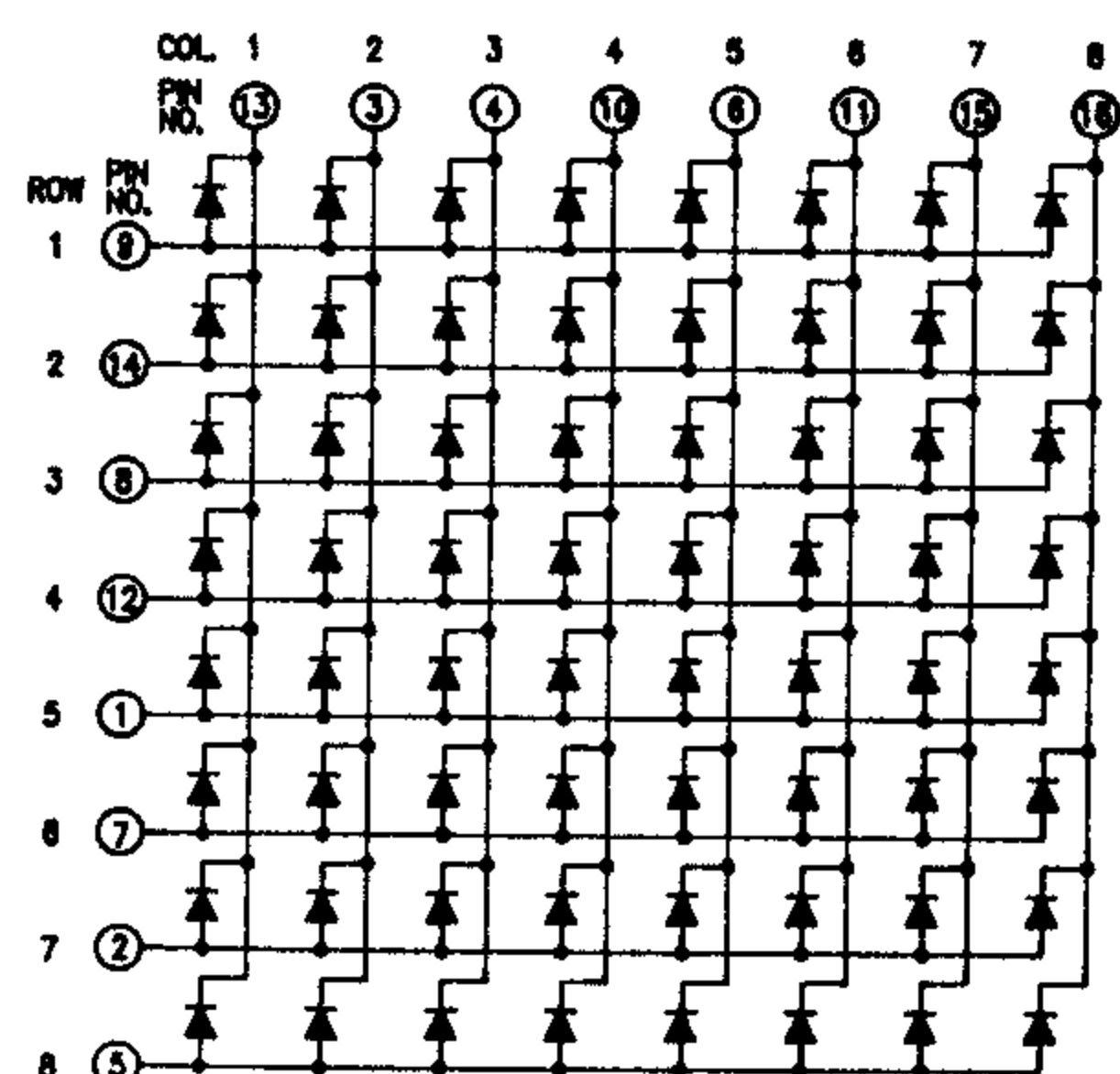
1. High brightness with high contrast
2. Wide angle viewing
3. Low power consumption;  
Directly drive with I.C
4. Solid state reliability;  
Long operation life
5. Cathode- row (SDM5880) and cathode column (SDM-5887) types available

## CONNECTIONS GUIDE

(Top View)



SDM 5880 (Cathode Row)



SDM 5887 (Cathode Column)

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### Red SDM 5880/5887UR (GaAlAs)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	2560	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	1.9	2.1	V
Reverse current/Dot	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/Dot	I <sub>V</sub>	I <sub>F</sub> = 10mA	1300	2500	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	660	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	20	—	nm

### Orange SDM 5880/5887SR (GaAsP/GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	2560	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.0	2.2	V
Reverse current/Dot	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/Dot	I <sub>V</sub>	I <sub>F</sub> = 10mA	500	1000	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	35	—	nm

### Yellow-green SDM 5880/5887UG (GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Power dissipation/Total	2560	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

#### Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.1	2.3	V
Reverse current/Dot	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/Dot	I <sub>V</sub>	I <sub>F</sub> = 10mA	600	1200	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	30	—	nm

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