

High Reliability 1.88-inch (48.0mm) Dual-Color 16x16 ϕ 2.2 Dot Matrix LED Displays

SDM-22169

GENERAL DESCRIPTION

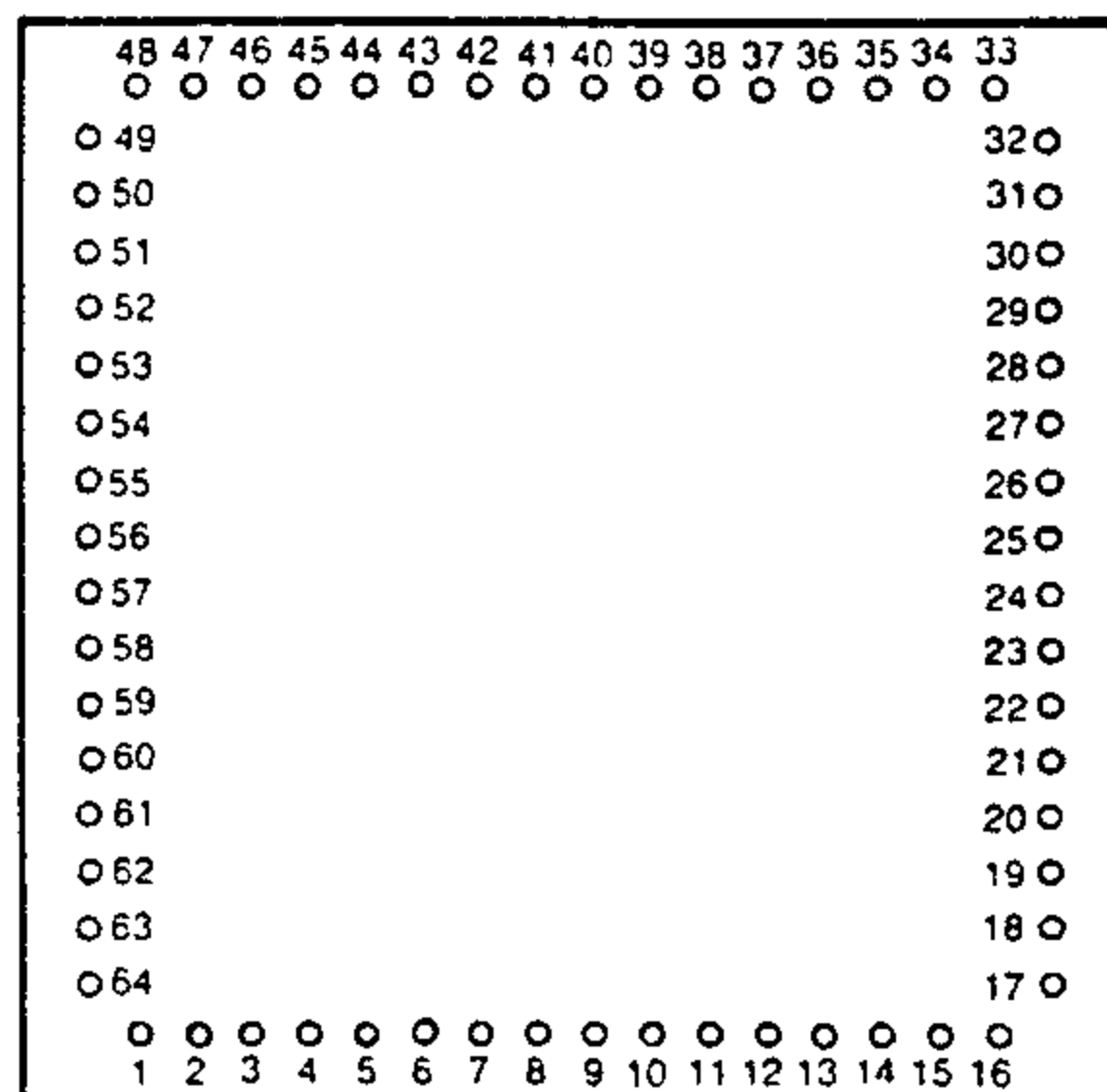
The SDM-22169 (cathode column) is a high reliability epoxy molded 48.0x48.0mm ϕ 2.2 dot matrix LED displays. A red and green chips are contained in each dots and it could be displayed in red or green color separately and appears in amber color when drive to red and green side in the same time.

FEATURES

1. High brightness with high contrast
2. Wide angle viewing
3. Low power consumption
4. Solid state reliability

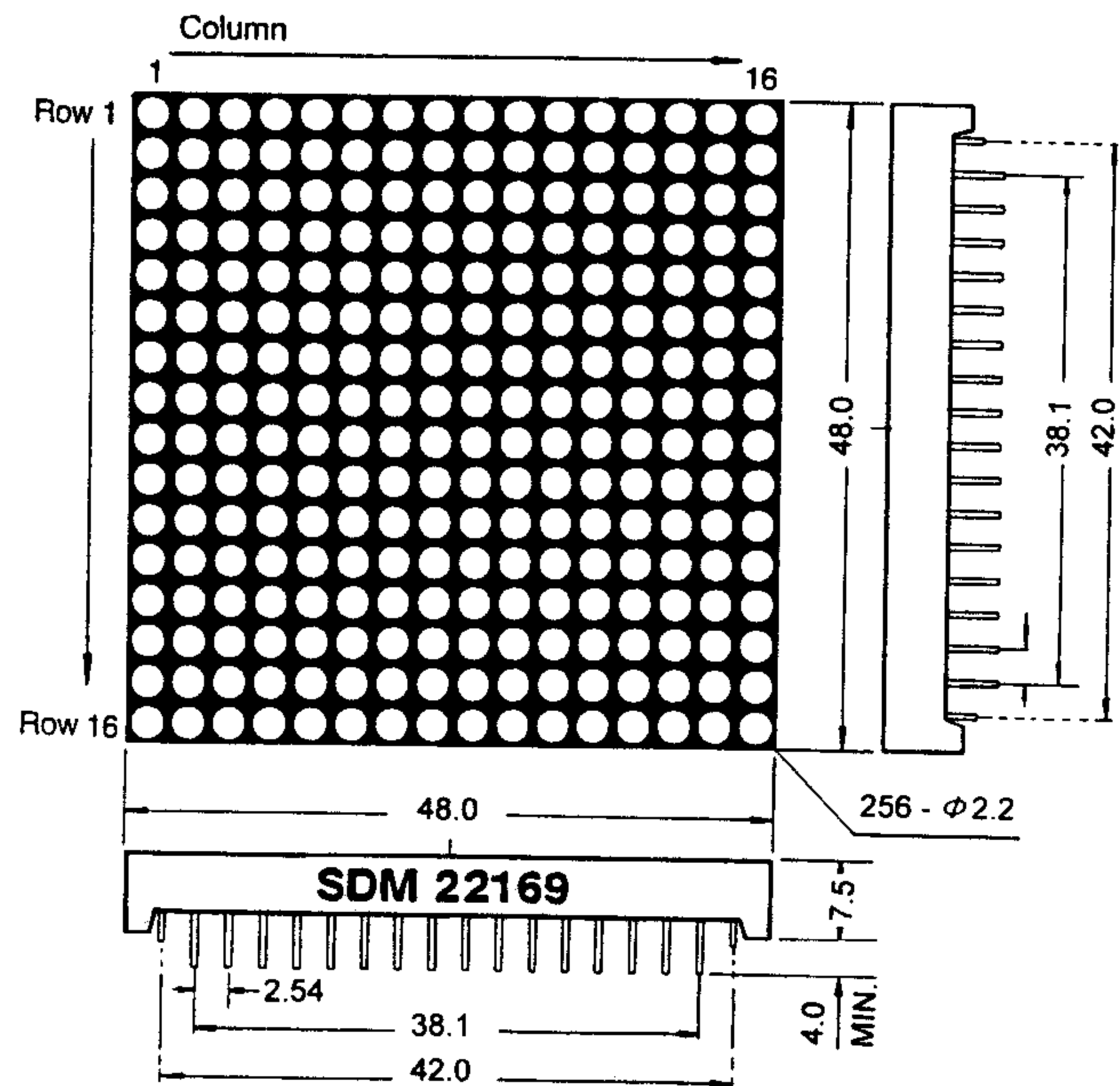
PIN ARRANGEMENT

(Top View)



PACKAGE DIMENSIONS

SCALE 1:1 (mm)

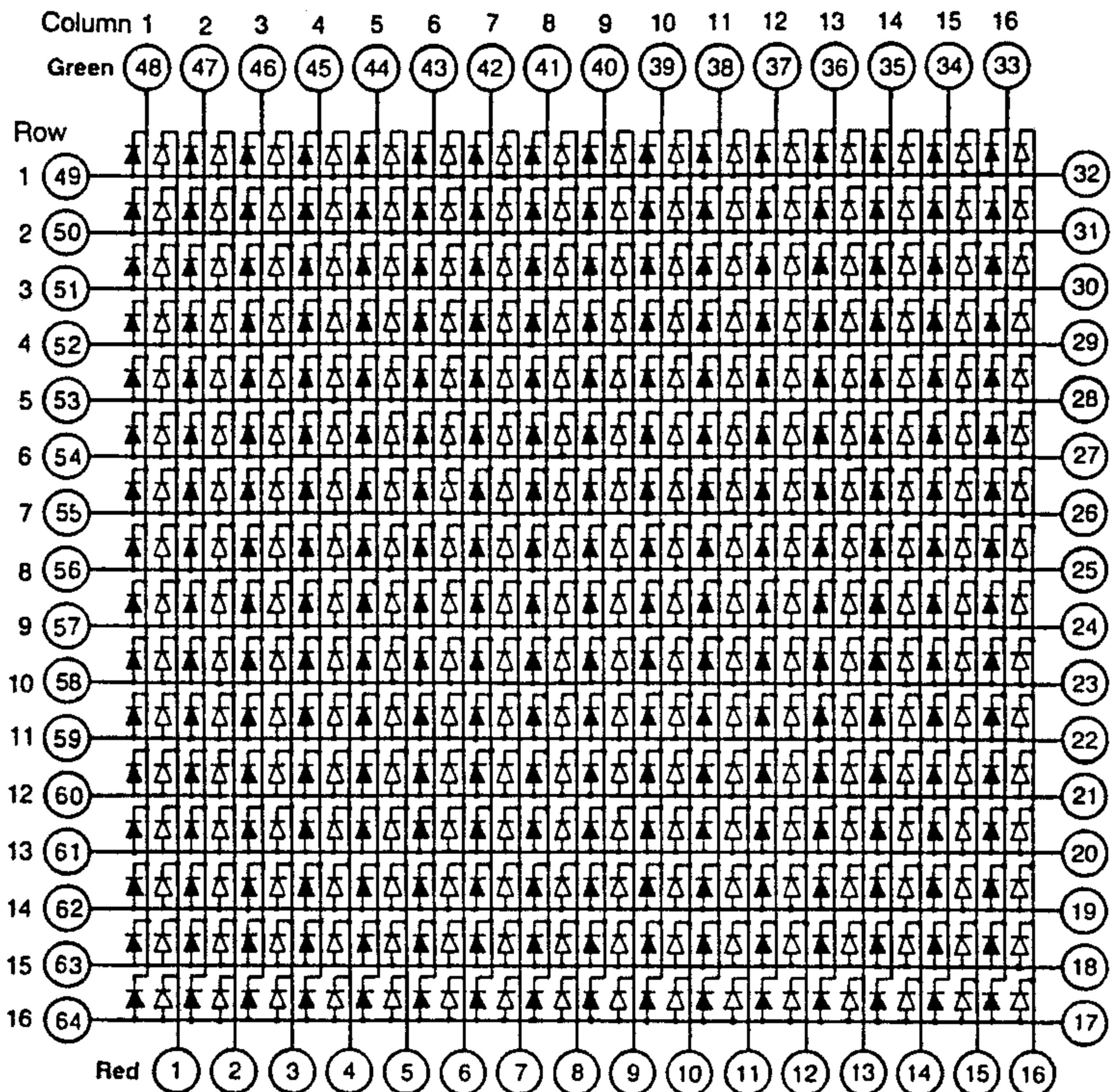
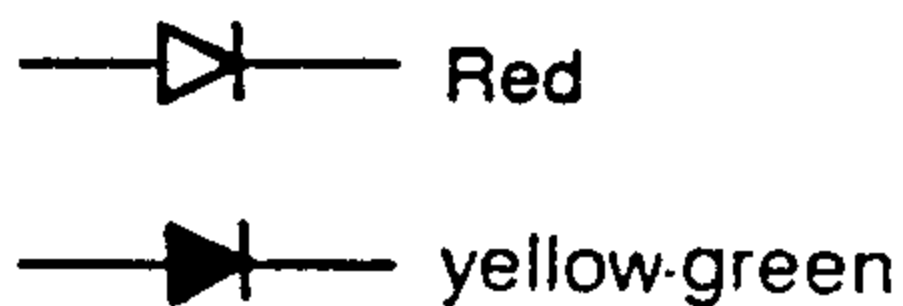
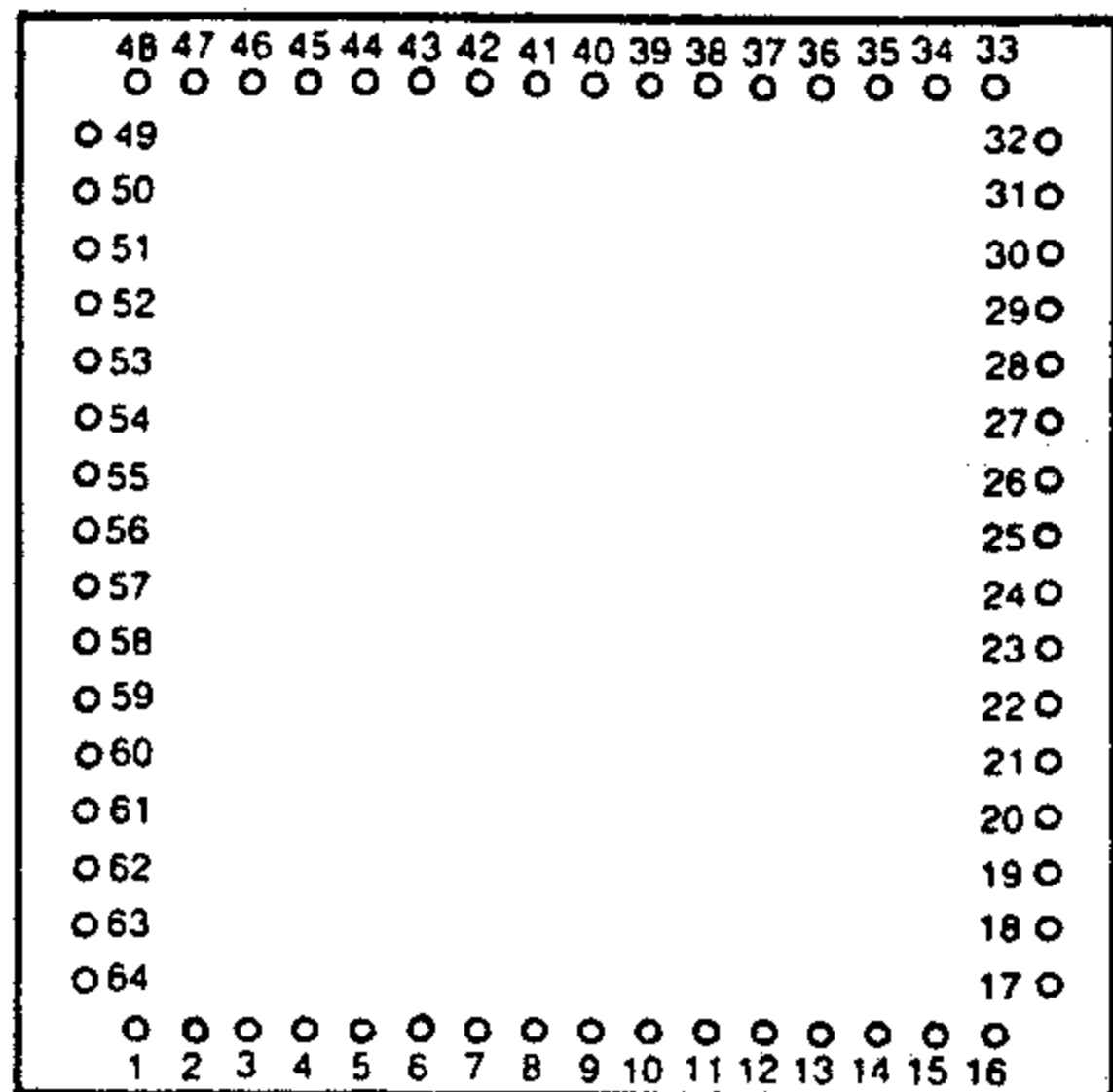


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PIN ARRANGEMENT

(Top View)



SDM 22169UR-UG (GaAlAs-GaP)

Red UR SIDE (GaAsP/GaP)

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

Power dissipation/Total	5000	mW
Power dissipation/Chip	30	mW
Forward current	15	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/Chip	V_F	$I_F = 10\text{mA}$	—	1.9	2.0	V
Reverse current/Chip	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/Chip	I_v	$I_F = 10\text{mA}$	900	1500	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	20	—	nm

Yellow-green UG SIDE (GaP)

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

Power dissipation/Total	5000	mW
Power dissipation/Chip	30	mW
Forward current	15	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/Chip	V_F	$I_F = 10\text{mA}$	—	2.1	2.3	V
Reverse current/Chip	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/Chip	I_v	$I_F = 10\text{mA}$	600	1200	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

* Duty ratio=1/16, Pulse width=0.1ms, Lighting ratio=50%

SDM 22169SR-UG (GaAsP/GaP-GaP)

Could be made for customs order only.