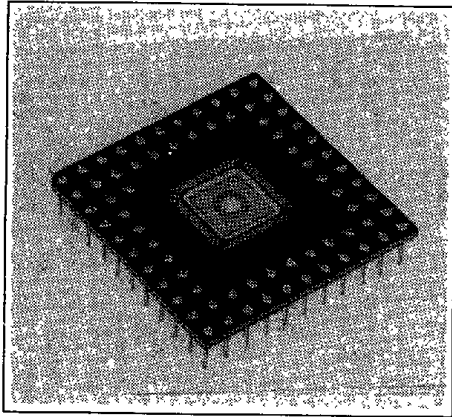


**SIEMENS**

**KOM 0622059**

**64-ELEMENT SILICON CIRCULAR ARRAY  
VERY LOW DARK CURRENT**

T-41-45



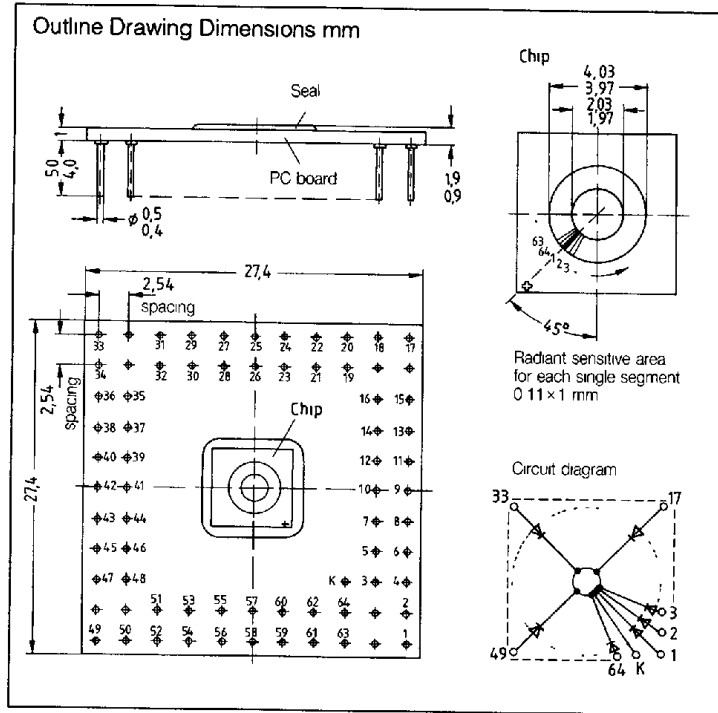
**DESCRIPTION**

The KOM 0622059 is a 64-element circular array fabricated in planar technology with low reverse current. The N-Si material used results in a positive front and negative back contact. These photodetectors are suitable for diode operation (with reverse voltage) as well as for element operation.

The package consists of PIN-GRID array printed board with pin connectors<sup>1)</sup> 2.54 mm (1/16") lead spacing, with clear epoxy seal. The cathode is Pin 65 and marked K (see outline drawing.)

Applications include circular coordinate recognition or adjustment control, angle increment detectors with a resolution of 5.625 degrees, surface control of ring-shaped areas, e.g. bottle necks.

Note:  
1 Socket PIN GRID ARRAY SOCKET UX-1111-084-GH-Y-33



**Characteristics (Single Segment)**

( $T_A=25^\circ\text{C}$ ,  $E_v=1000 \text{ lx}$ , standard light A,  $T=2856 \text{ K}$ )

Parameter	Symbol		Unit
Wavelength of Maximum			
Spectral Sensitivity	$\lambda_s$	850	nm
Spectral Sensitivity ( $S=10\%$ of $S_{MAX}$ )	$\lambda$	400 - 1050	nm
Radiant Sensitive Area (64 elements)	A	0.12 x 1	mm
Resolution (single segment)		5.625	Deg
Half Angle	$\phi$	$\pm 60$	Deg
Dark Current ( $V_R=5 \text{ V}$ )	$I_R$	15 ( $\leq 150$ )	pA
Maximum Deviation of the Spectral Sensitivity of the Systems from the Average Value	$\Delta_s$	-5	%
Open-Circuit Voltage	$V_O$	425 ( $\geq 300$ )	mV
Photocurrent ( $V_R=5 \text{ V}$ )	$I_p$	2.5 ( $\geq 1.8$ )	$\mu\text{A}$
Forward Voltage ( $I_F=10 \text{ mA}$ )	$V_F$	0.9 ( $\leq 1$ )	V
Reverse Voltage ( $I_R=5 \mu\text{A}$ )	$V_R$	18 ( $\geq 10$ )	V
Capacitance			
( $V_R=0 \text{ V}$ )	$C_o$	23	pF
( $V_R=5 \text{ V}$ )	$C_s$	14	pF

Photodiodes