

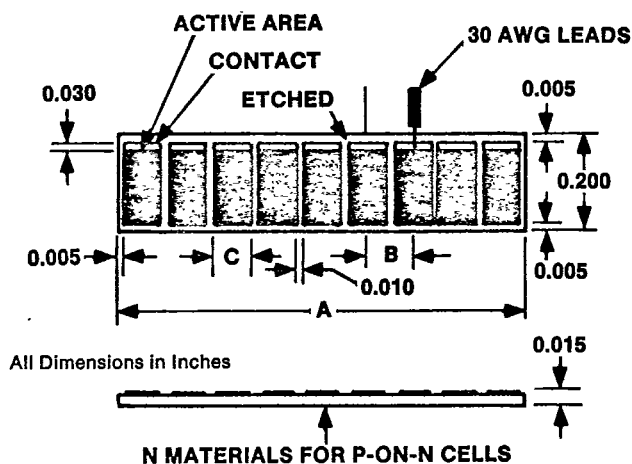
SPR-1-08/SPR-1-10 Silicon Multi-Channel Detector Array

T-41-55

DESCRIPTION

Both the SPR-1-08 and SPR-1-10 are linear arrays of P-ON-N silicon photovoltaic cells. Originally designed for tape and punch cards they find use in many encoding and position sensing applications.

DIMENSIONS

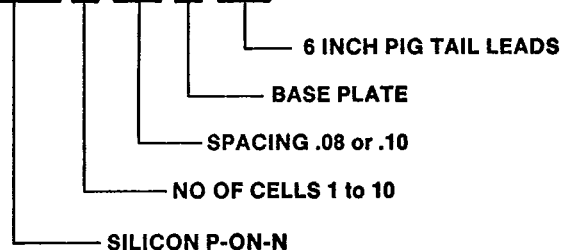


FEATURES

- Common cathode
- Speed response < 2 μ s
- 2-10 channels available
- Order with base plate mount
- Optional pig tail leads

ORDERING INFORMATION

SPR-1-08 B PL



	-08 SERIES	-10 SERIES
A	0.087 X Number of Segments	0.100 X Number of Segments
B	0.087	0.100
C	0.077	0.090

ABSOLUTE MAXIMUM RATINGS

Storage temperature range.....-0°C to 70°C
 Operating case temperature range.....-0°C to 70°C
 Lead temperature for 5 seconds.....240°C

ELECTRO-OPTICAL CHARACTERISTICS (T_C = 25°C UNLESS OTHERWISE SPECIFIED)

PARAMETER	TEST CONDITION	SYMBOL	SPR-1-08			SPR-1-10			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
Short Circuit Current	R _L ≤ 50 Ω, See Note 1	I _{SC}	225	250		250	315		μA
Light Current	R _L = 1 KΩ, See Note 1	I _L	145	180		200	270		μA
Load Voltage	R _L = 1 KΩ, See Note 1	V _L	145	180		200	270		mV
Open Circuit Voltage	H _e = 300 fc	V _{OC}		325			325		mV
Rise Time	See Note 2	t _r		2.0			2.0		μSec
Dark Current	V _R = .1 V	I _d			20			20	μA

NOTES: 1. Rated at 500 fc, color temp. 2800°K, 25°C ambient.
 2. Response time value assumes optimum impedance for illumination level.

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TYPICAL PERFORMANCE CURVES

SPECTRAL ENERGY OF LIGHT SOURCES

- SOLAR RADIATION
- ▨ MERCURY LAMP
- TUNGSTEN LAMP (COLOR TEMPERATURE (2850° K))
- - - WHITE FLUORESCENT LAMP
- · - · - GaAs ELECTRO-LUMINESCENCE

SPECTRAL RESPONSE OF CHARACTERISTICS

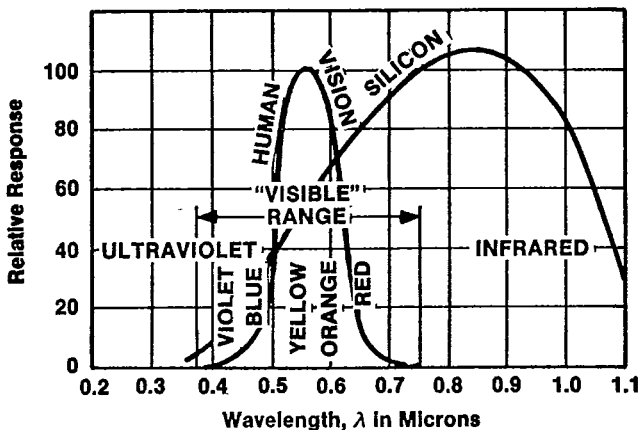


FIGURE 1

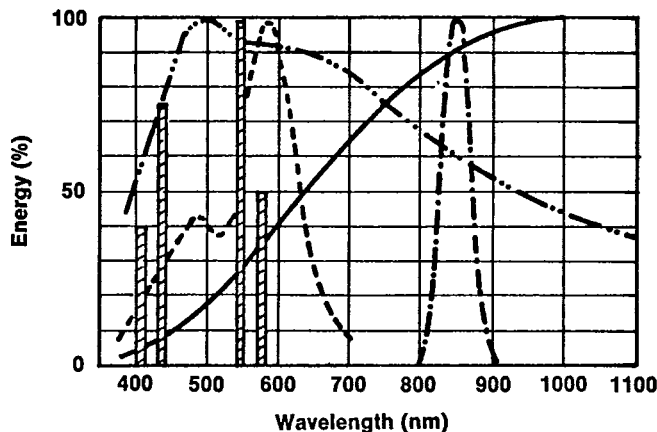


FIGURE 2

TEMPERATURE COEFFICIENTS

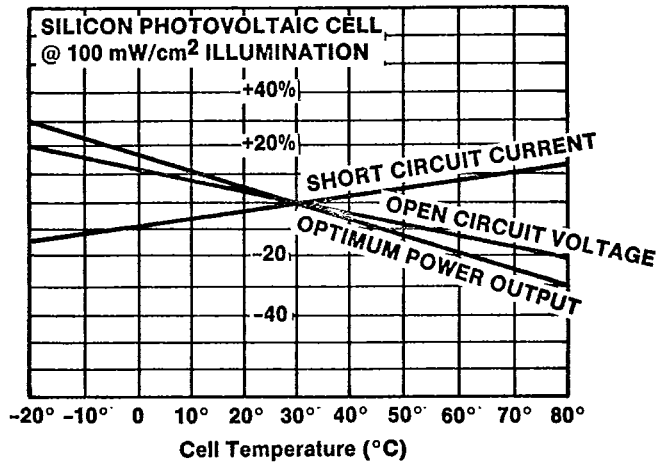


FIGURE 3

CELL CAPACITANCE

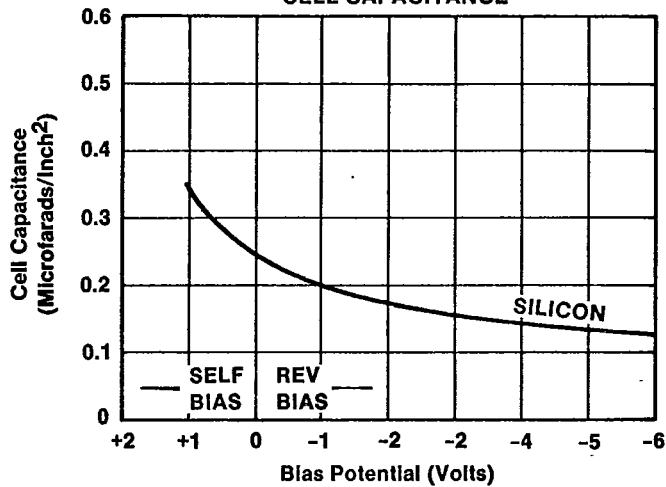


FIGURE 4

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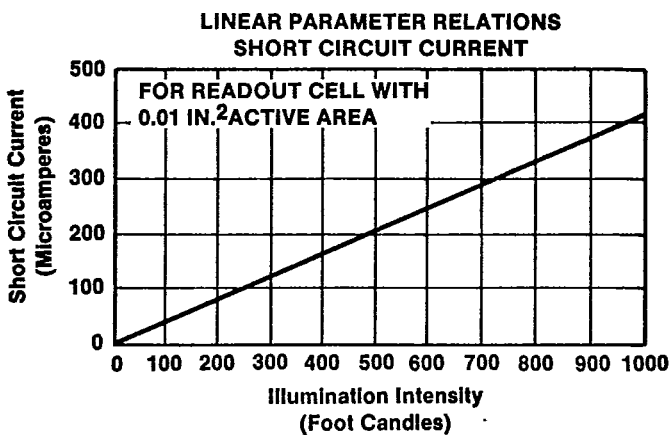


FIGURE 5

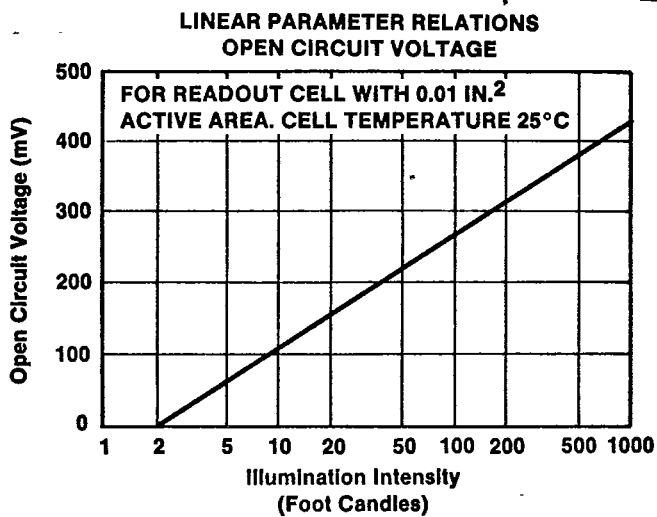


FIGURE 6

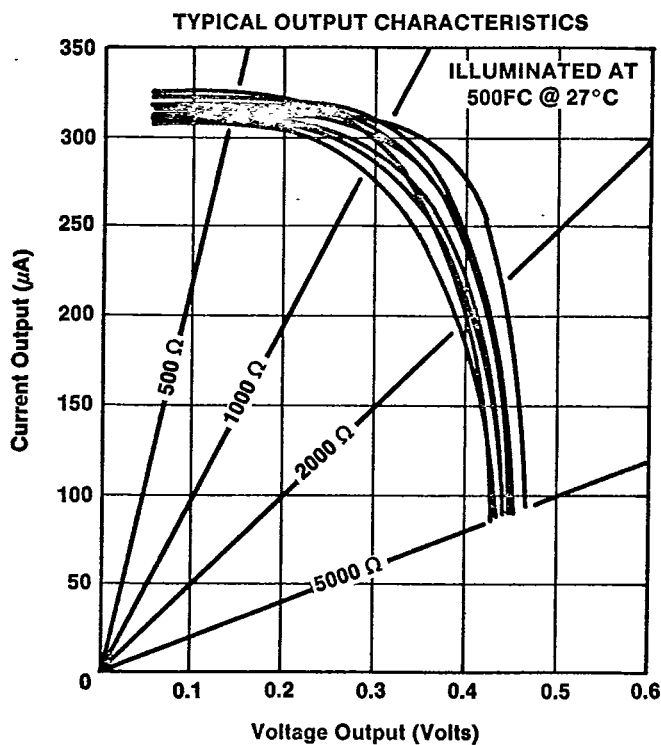


FIGURE 7

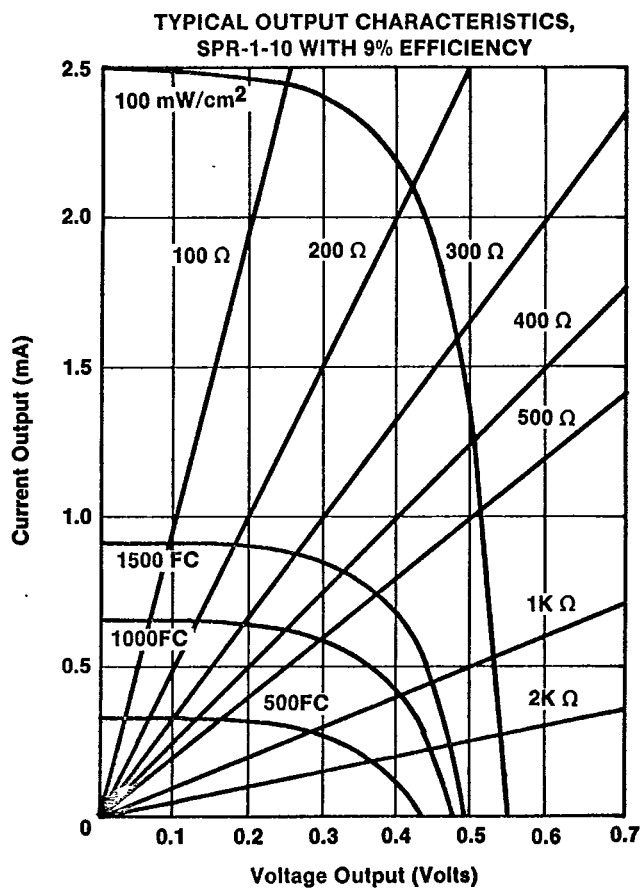


FIGURE 8

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