



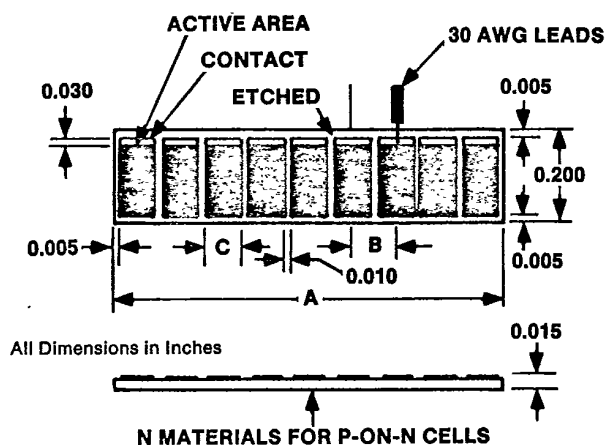
Texas Optoelectronics, Inc.

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

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



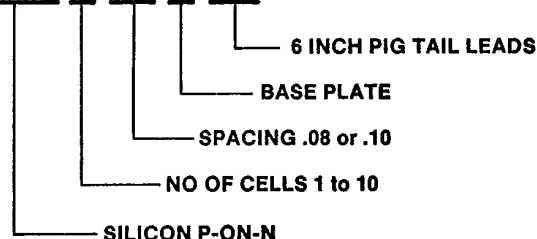
	-08 SERIES	-10 SERIES
A	0.087 X Number of Segments	0.100 X Number of Segments
B	0.087	0.100
C	0.077	0.090

FEATURES

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

ORDERING INFORMATION

SPR-1-08 B PL



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	$R_L \leq 50 \Omega$, See Note 1	I_{SC}	225	250		250	315		μA
Light Current	$R_L = 1 K\Omega$, See Note 1	I_L	145	180		200	270		μA
Load Voltage	$R_L = 1 K\Omega$, 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

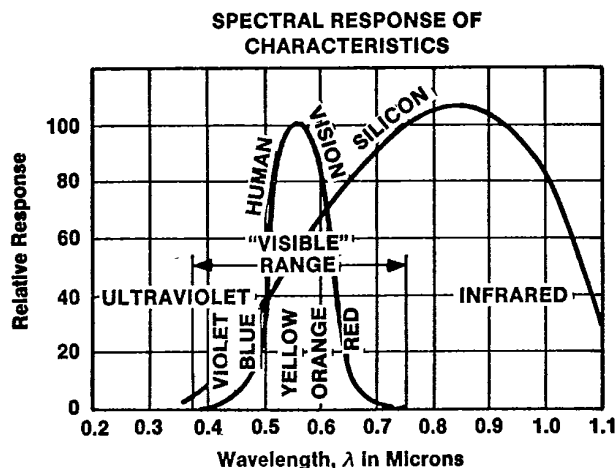


FIGURE 1

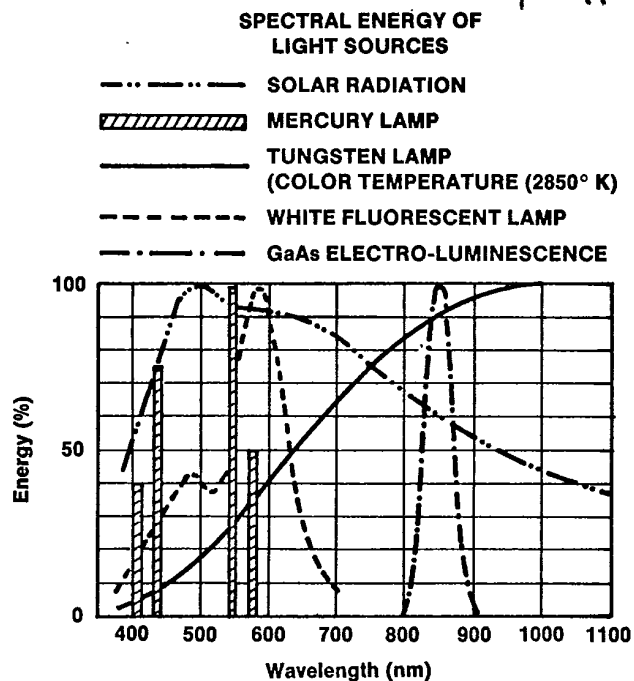


FIGURE 2

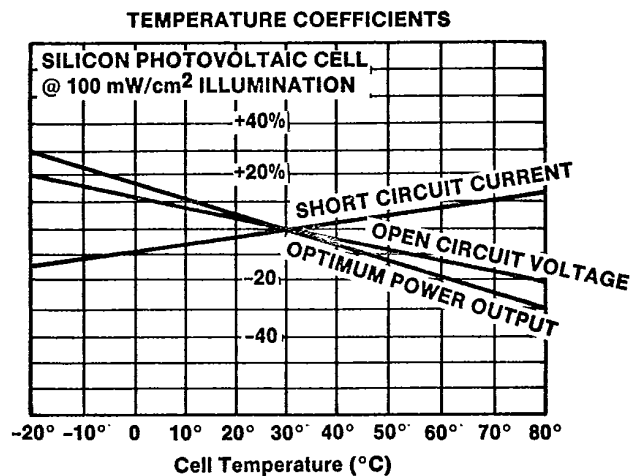


FIGURE 3

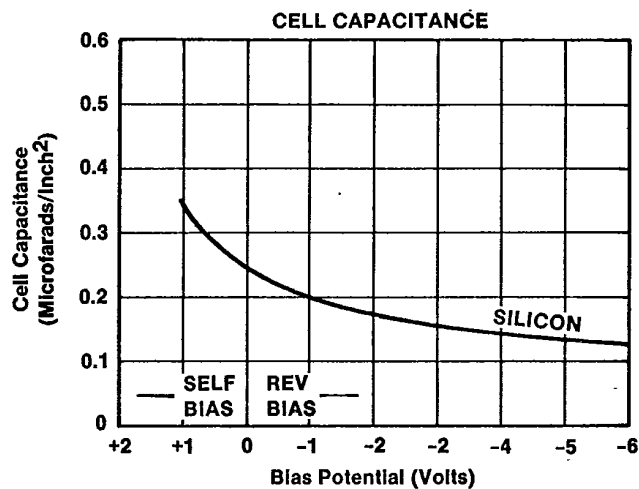


FIGURE 4



Texas Optoelectronics, Inc.

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

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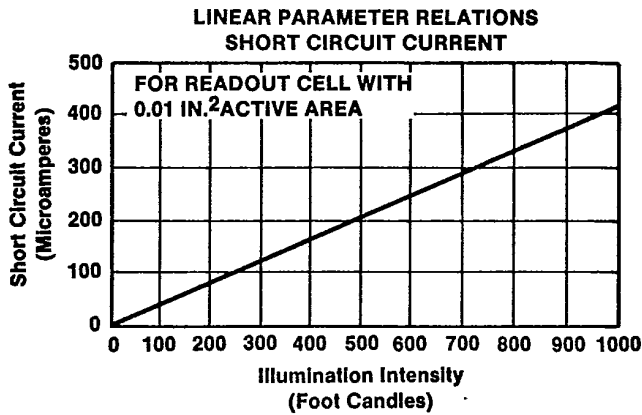


FIGURE 5

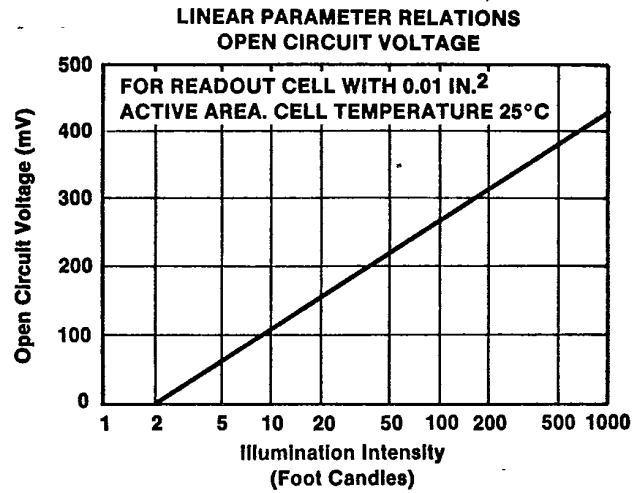


FIGURE 6

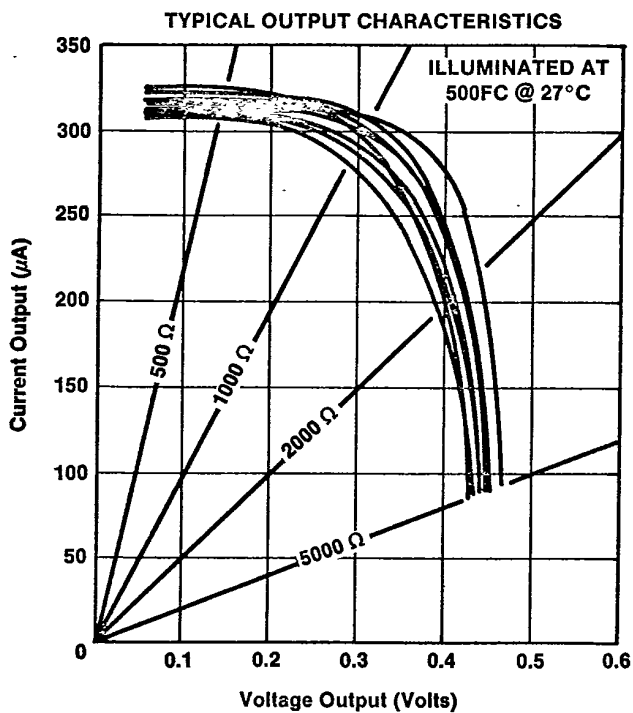


FIGURE 7

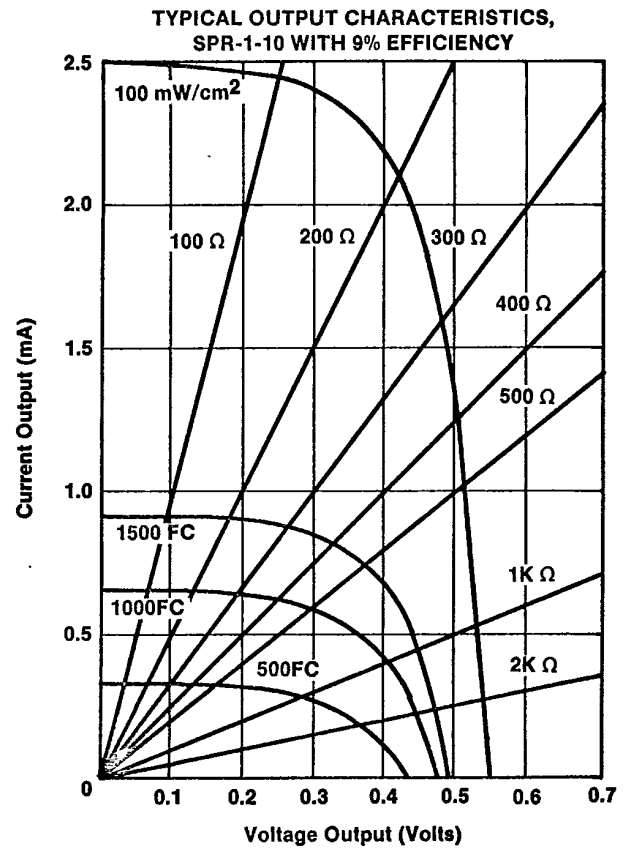


FIGURE 8