



### FEATURES

- Lead-Free
- Visible to IR spectral irradiance range
- High reliability
- Oxide passivation
- Linear short circuit current
- Low capacitance, high speed
- Available in arrays where # indicates number of elements ( maximum of 8 elements )

These Silicon solderable planar photodiodes feature low cost, high reliability, and linear short circuit current over a wide range of illumination. These devices are widely used for light sensing and power generation because of their stability and high efficiency. They are particularly suited to power conversion applications due to their low internal impedance, relatively high shunt impedance, and stability. These devices also provide a reliable and inexpensive detector for instrumentation and light beam sensing applications. In the multi-element arrays the cathodes are common to a single cathode wire.

### DESCRIPTION

### APPLICATIONS

- Industrial

### ABSOLUTE MAXIMUM RATING

(TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
T <sub>Op</sub>	Operating Temperature	-40	+105	°C
T <sub>Stg</sub>	Storage Temperature	-40	+105	°C
T <sub>S</sub>	Soldering Temperature*		+260	°C



#### Notes:

- (1) Ee = light source @ 2854 °K,
- (2) Available without leads as part number SLCD-61N800 or as chip array as SLCD-61N800-XX

### RELIABILITY

Contact API for recommendations on specific test conditions and procedures.

### ELECTRO-OPTICAL CHARACTERISTICS RATING

(TA)= 23°C, UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
ISC	Short Circuit Current	VR=0V, Ee=25mW/cm <sup>2</sup> (1)	100	170	-	μA
VOC	Open Circuit Voltage	Ee=25mW/cm <sup>2</sup> (1)		0.4	-	V
ID	Reverse Dark Current:	VR=5V, Ee=0			1.7	μA
VBR	Reverse Breakdown Voltage	IR=100μA	20			V
λ <sub>P</sub>	Maximum Sensitivity Wavelength			930		nm
λ <sub>S</sub>	Spectral Sensitivity	λ=940nm		0.55		A/W
λ <sub>R</sub>	Sensitivity Spectral Range		400		1100	nm
C <sub>j</sub>	Junction Capacitance	VR=0V, Ee=0, f=1MHz	-	100		pF
θ <sub>1/2</sub>	Acceptance Half Angle	(off center-line)	-	60		deg