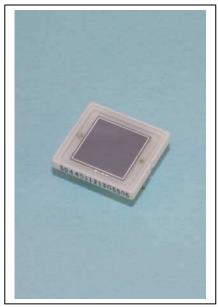
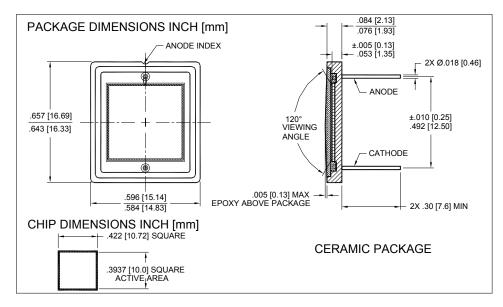


Red Enhanced High Performance Silicon Photodiode SD 445-14-21-305





FEATURES

· Low noise

- Red enhanced
- · High shunt resistance
- · High response

DESCRIPTION

The **SD 445-14-21-305** is a high performance silicon PIN photodiode, red enhanced, packaged in a leaded hermetic ceramic package.

APPLICATIONS

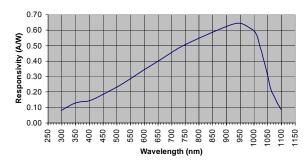
- Instrumentation
- Industrial
- Medical

ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	°C
To	Operating Temperature	-20	+75	°C
Ts	Soldering Temperature*		+240	°C

^{* 1/16} inch from case for 3 seconds max.

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA) = 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _D	Dark Current	V _R = 5 V		6.0	30	nA
R_{SH}	Shunt Resistance	$V_R = 10 \text{ mV}$	30			$\mathbf{M}\Omega$
С	Junction Capacitance	$V_R = 0 V$, $f = 1 MHz$		1700		- pF
		$V_R = 5 V$, $f = 1 MHz$		500		
λ range	Spectral Application Range	Spot Scan	350		1100	nm
R	Responsivity	λ = 633 nm, V_R = 0 V	0.32	0.36		A/W
		λ = 900 nm, V_R = 0 V	0.50	0.55		
V_{BR}	Breakdown Voltage	I = 10 μA		50		V
NEP	Noise Equivalent Power	V_{R} = 5 V @ λ = 950 nm		8.6X10 ⁻¹⁴		W/ √ _{Hz}
t _r	Response Time**	RL = 50 Ω , V_R = 0 V		190		- nS
		RL = 50 Ω , V_R = 10 V		13		

^{**}Response time of 10% to 90% is specified at 660nm wavelength light.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.