

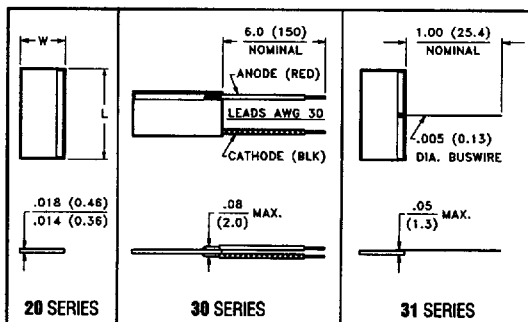
VTS-2 Process Photodiodes**VTS__94, 95, 96**

E G & G VACTEC

T-41-51

PRODUCT DESCRIPTION

Large area planar silicon photodiodes suitable for use in the photovoltaic mode, but may be used with a small reverse bias. The low capacitance of these units permits fast response time. These cells have moderate shunt resistance which provides low offset gain in transimpedance op-amp circuits. Cells have solderable contacts and are available with or without flexible flying leads. Devices with leads are acrylic (plastic) coated.

PACKAGE DIMENSIONS inch (mm)**ABSOLUTE MAXIMUM RATINGS**

Storage Temperature:

-40°C to 150°C Series 20, 31

-40°C to 105°C Series 30

Operating Temperature:

-40°C to 125°C Series 20, 31

-40°C to 105°C Series 30

CASE 44CANODE (ACTIVE) SURFACE SHOWN
CATHODE IS BACKSIDE

DIMENSIONS	VTS__94	VTS__95	VTS__96
L	1.375 (34.9)	1.25 (31.8)	.600 (15.2)
W	.100 (2.54)	.150 (3.8)	.400 (10.2)
ACTIVE AREA	.082 ² (53 ²)	.136 ² (88 ²)	.215 ² (139 ²)

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTS-2 curves, page 87)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTS__94			VTS__95			VTS__96			UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I _{sc}	Short Circuit Current	H = 100 fc, 2850 K	320	420		550	720		890	1150		μA
TC I _{sc}	I _{sc} Temp. Coefficient	2850 K		.20			.20			.20		%/°C
I _{sc}	Short Circuit Current	100 mW/cm ² , 940 nm		29			48			75		μA
V _{oc}	Open Circuit Voltage	H = 100 fc, 2850 K		.33			.33			.33		V
TC V _{oc}	V _{oc} Temp. Coefficient	2850 K		-2.0			-2.0			-2.0		mV/°C
I _d	Dark Current	H = 0, V _R = 100 mV	20	100		40	200		100	400		nA
R _{SH}	Shunt Resistance	H = 0, V = 10 mV		3.0			1.5			0.6		MΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V = 10 mV		-11			-11			-11		%/°C
C _j	Junction Capacitance	H = 0, V = 0 V		1.10			1.7			2.0		nF
λ _{range}	Spectral Application Range		400		1100	400		1100	400		1100	nm
λ _p	Spectral Response - Peak			925			925			925		nm
S _R	Sensitivity	@ Peak		.55			.55			.55		A/W