

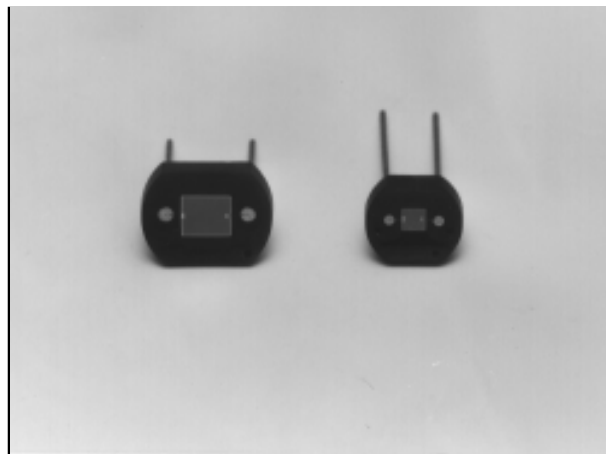
High reliability photodiodes for visible light detection

FEATURES

- Wide operating temperature range: -40 to +110 °C
- Small deterioration in high temperature and high humidity
- Visible compensation filter is useless

APPLICATIONS

- Automobile (auto light, control of display, etc.)
- Copier
- Camera
- Control of display
- Visible light detection



■ABSOLUTE MAXIMUM RATINGS (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R Max.	10	V
Operating Temperature	T _{opr}	-40 to +110	°C
Storage Temperature	T _{stg}	-40 to +110	°C

■ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25 °C)

Parameter	Symbol	Condition	S6626			S6838			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Spectral Response Range	λ		320 to 840			320 to 840			nm
Peak Sensitivity Wavelength	λ_p		-	540	-	-	540	-	nm
Photo Sensitivity	S	$\lambda = \lambda_p$	-	0.27	-	-	0.27	-	A/W
Short Circuit Current	I _{sc}	100 lx, 2856 K	0.65	0.85	-	0.15	0.20	-	μA
Dark Current	I _D	V _R =1 V	-	-	-	-	10	50	pA
		V _R =2 V	-	25	55	-	-	-	
Coefficient of Dark Current	-		-	1.13	-	-	1.13	-	times/°C
Rise Time	t _r	V _R =0 V R _L =1 kΩ	-	10	-	-	2	-	μs
Terminal Capacitance	C _t	V _R =0 V f=10 kHz	-	3	-	-	0.7	-	nF

Si PHOTODIODES S6626, S6838

Figure 1: Spectral Response

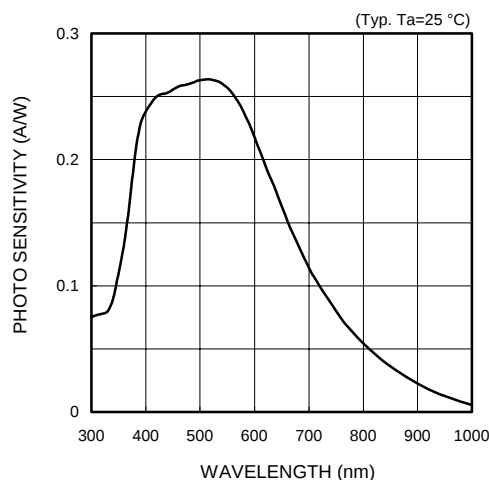


Figure 2: Dark Current vs. Reverse Voltage

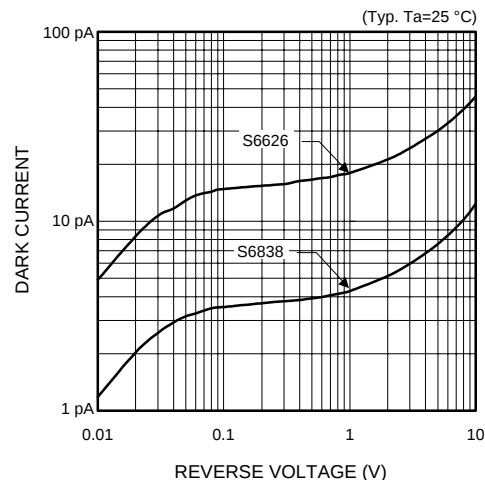


Figure 3: Terminal Capacitance vs. Reverse Voltage

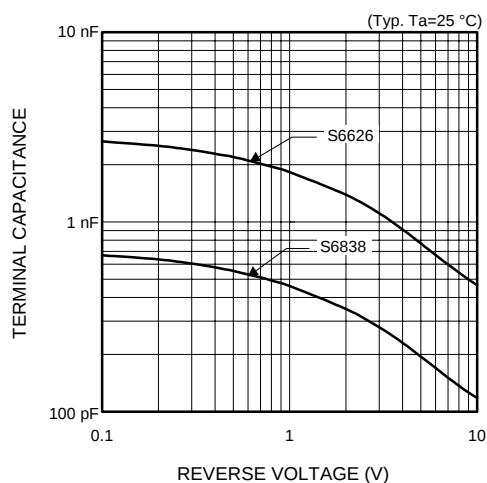
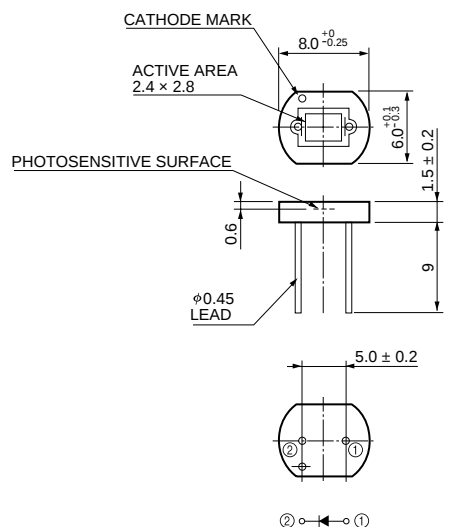
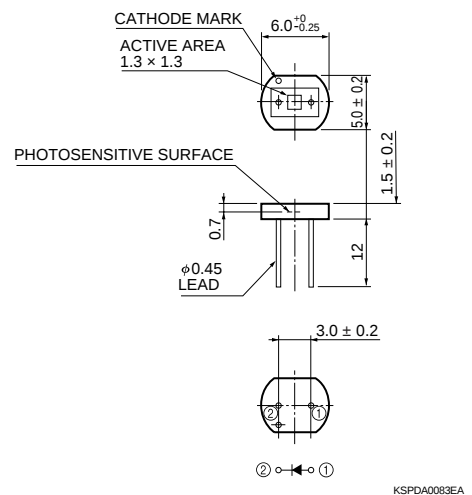


Figure 4: Dimensional Outline (Unit: mm)

S6626



S6838



HAMAMATSU

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation, 360 Foothill Road, P.O. Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH, Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France: S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: Lough Point, 2 Gladbeck Way, Windmill Hill, Enfield, Middlesex EN2 7JA, United Kingdom, Telephone: (44) 020-8367-3560, Fax: (44) 020-8367-6384

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, Milano, Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741

Cat. No. KSPD1015E01

Feb. 1997 SI

Printed in Japan (1,000)