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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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BS520

Photodiode for Visible Light

■ Features

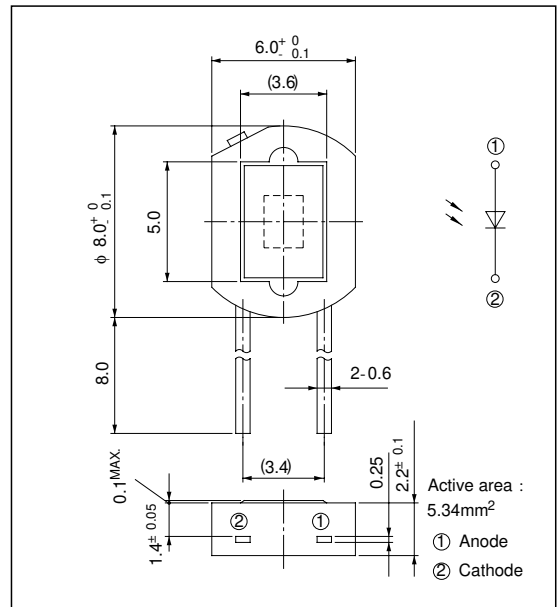
1. Spectral sensitivity characteristics akin to that of human eye
2. Compact flat package
3. Low dark current (I_d : MAX. 10^{-11} A at $V_R=1V$)
4. Infrared light cut-off type

■ Applications

1. AE (automatic exposure) system and ES (electronic shutter) system for cameras
2. Stroboscopes
3. Precise optical instruments

■ Outline Dimensions

(Unit:mm)



■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	10	V
Operating temperature	T_{opr}	- 20 to + 60	°C
Storage temperature	T_{stg}	- 30 to + 80	°C
*1 Soldering temperature	T_{sol}	260	°C

*1 For 5 seconds

■ Electro-optical Characteristics (Ta= 25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*2 Short circuit current	I_{sc}	$E_v = 100lx$	0.40	0.55	0.65	μA
*2 Short circuit current temperature coefficient	β_T	$E_v = 100lx$	-	0.02	0.06	%/°C
Dark current	I_d	$V_R = 1V$	-	3×10^{-12}	10^{-11}	A
Dark current temperature coefficient	α_T	$V_R = 1V$	-	4.0	5.0	times/10°C
Terminal capacitance	C_t	$V_R = 0, f = 100kHz$	-	600	1 000	pF
Peak sensitivity wavelength	λ_p	-	500	560	600	nm
*3 Spectral sensitivity infrared radiation ratio	ΔI_R	-	-	5	10	%

*2 E_v : Illuminance by CIE standard light source A (tungsten lamp)

$$*3 \Delta I_R = \frac{I_{sc}(\lambda \geq 700nm)}{I_{sc}(\text{entire wavelength})} \times 100\%$$

Fig. 1 Short Circuit Current vs. Illuminance

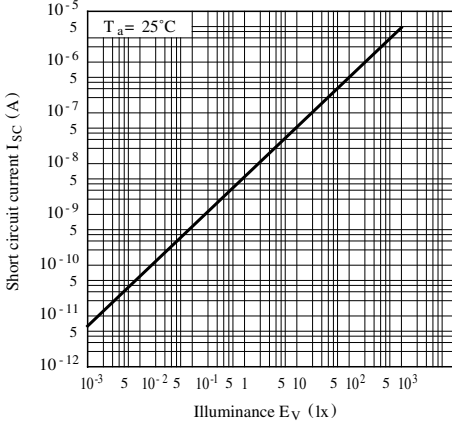


Fig. 2 Relative Short Circuit Current vs. Ambient Temperature

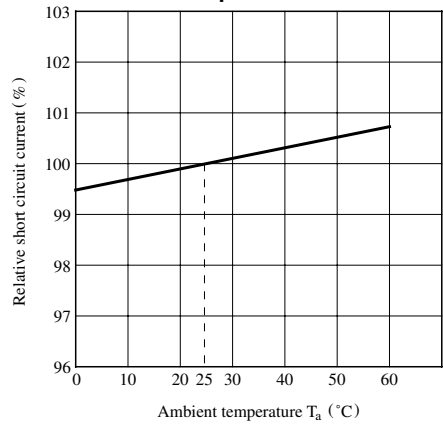


Fig. 3 Dark Current vs. Reverse Voltage

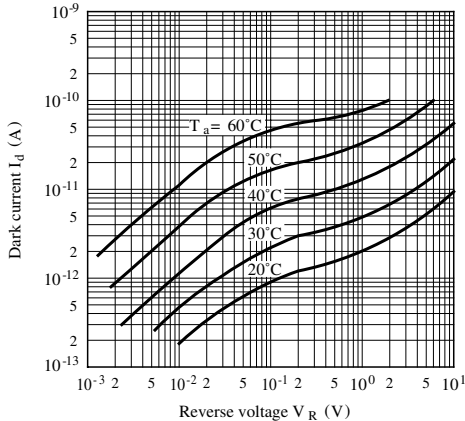


Fig. 4 Spectral Sensitivity

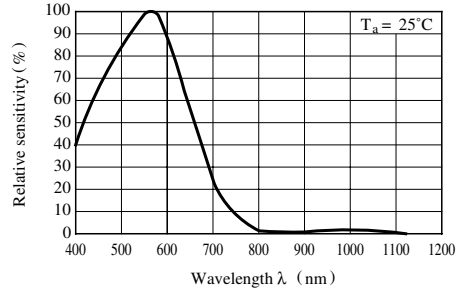
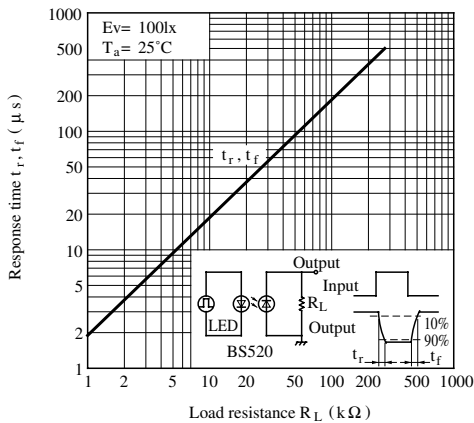


Fig. 5 Response Time vs. Load Resistance



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 - Alarm equipment
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