

# BS115

Can Package Photodiode  
for **Visible** Light

## ■ Features

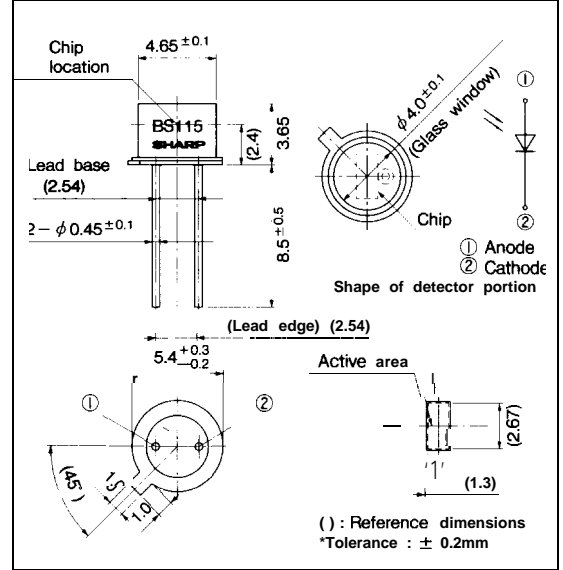
1. Spectral sensitivity characteristics akin to that of human eye
2. Wide operating temperature ( $T_{opr}$ :  $-30$  to  $+110^{\circ}\text{C}$ )
3. High reliability (can package is adopted)
4. Low dark current ( $I_d$ : MAX.  $1\text{nA}$  at  $V_R=5\text{V}$ )

## ■ Applications

1. LCD backlight monitor
2. Exposure meter

## ■ Outline Dimensions

(Unit : mm)



## ■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	Rating	unit
Reverse voltage	$V_R$	5	V
Operating temperature	$T_{opr}$	$-30$ to $+110$	$^{\circ}\text{C}$
Storage temperature	$T_{stg}$	$-40$ to $+125$	$^{\circ}\text{C}$
Soldering temperature	$T_{sol}$	260	$^{\circ}\text{C}$

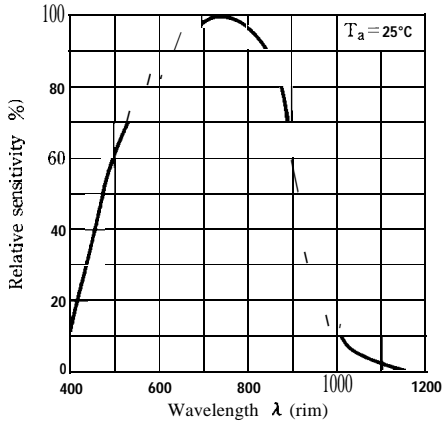
## ■ Electro-optical Characteristics

(Ta = 25°C)

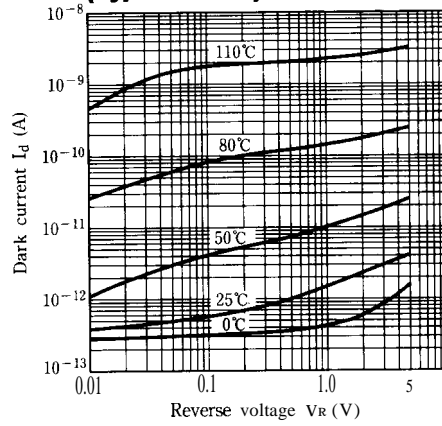
Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Short circuit current	$I_{sc}$	*1 $E_V=100\text{lx}$	1.4	1.7	2.1	$\mu\text{A}$
Short circuit current temperature coefficient	$\beta_{TF}$	*1 $E_V=100\text{lx}$	-	0.05	-	%/ $^{\circ}\text{C}$
Dark current	$I_d$	$V_R=5\text{V}$	-	-	1.0	nA
Open circuit voltage	$V_{oc}$	*1 $E_V=100\text{lx}$	370	470	-	mV
Peak sensitivity wavelength	$\lambda_P$		-	750	-	nm
Terminal capacitance	$C_t$	$V_R=0\text{V}, f=10\text{kHz}$	-	270	-	pF
Response time	$t_r$	$V_R=0, R_L=1\text{k}\Omega$	-	2.0	-	$\mu\text{s}$

\*1 E.: Illuminate by CIE standard light source A (tungsten lamp)

**Fig. 1 Spectral Sensitivity (Typical Value)**



**Fig. 2 Dark Current vs. Reverse Voltage (Typical Value)**



● Please refer to the chapter “Precautions for Use.” (Page 78 to 93)