

勝特力電材超市-龍山店 886-3-5773766  
 勝特力電材超市-光復店 886-3-5729570  
 勝特力電子(上海) 86-21-34970699  
 勝特力電子(深圳) 86-755-83298787  
<http://www.100y.com.tw>

PHOTODIODE

# Si photodiode S2551

For visible to infrared precision photometry



S2551 is a Si photodiode having a long active area of  $1.2 \times 29.1$  mm, designed for visible to infrared precision photometry

### Features

- 1 Long, narrow active area:  $1.2 \times 29.1$  mm
- 1 High sensitivity
- 1 Low capacitance

### Applications

- 1 Analytical instruments
- 1 Optical measurement equipment

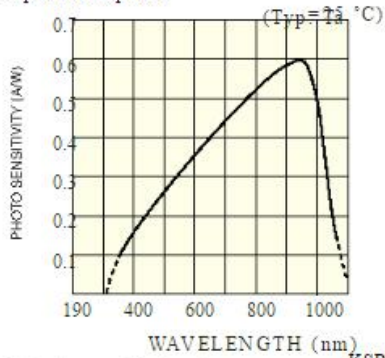
### 3 Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage	$V_{R\ Max}$	30	V
Operating temperature	$T_{op\ r}$	-20 to +60	$^{\circ}C$
Storage temperature	$T_{stg}$	-20 to +80	$^{\circ}C$

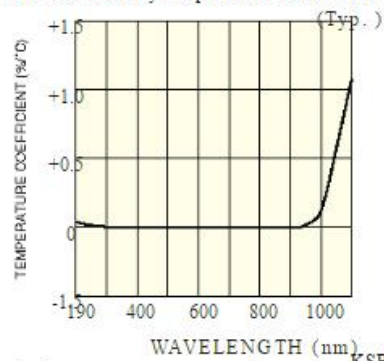
### 3 Electrical and optical characteristics ( $T_a=25^{\circ}C$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	$\lambda$		-	320 to 1060	-	nm
Peak sensitivity wavelength	$\lambda_p$		-	920	-	nm
Photo sensitivity	S	$\lambda = \lambda_p$	-0.6	-	-4	A/W
Short circuit current	$I_{sc}$	1.00 lx	24	30	-	$\mu A$
Dark current	$I_D$	$V_R=10\ mV$	-	-	1	nA
Temperature coefficient of $I_D$			-	1.15	-	times/ $^{\circ}C$
Rise time	$t_r$	$V_R=0\ V, R_L=10\ \Omega$	-1.4	-	-	$\mu s$
Terminal capacitance	$C_t$	$V_R=0\ V, f=10\ kHz$	-	350	-	pF
Shunt resistance	$R_{sh}$	$V_R=10\ mV$	0.01	0.03	-	$G\Omega$
Noise equivalent power	NEP	$V_R=0\ V, \lambda = \lambda_p$	-	$3.9 \times 10^{-14}$	-	W/Hz/2

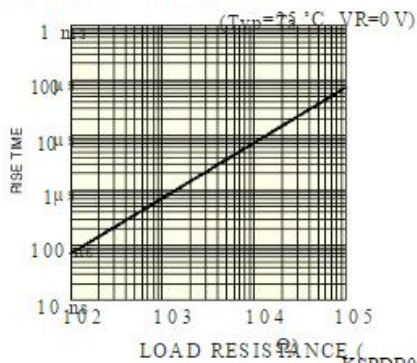
s Spectral response



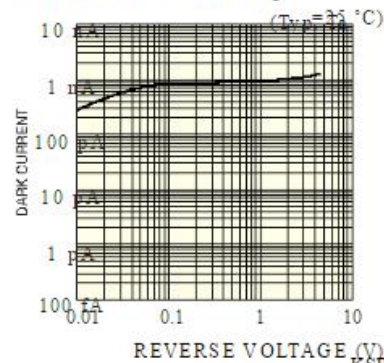
■ Photo sensitivity temperature characteristic



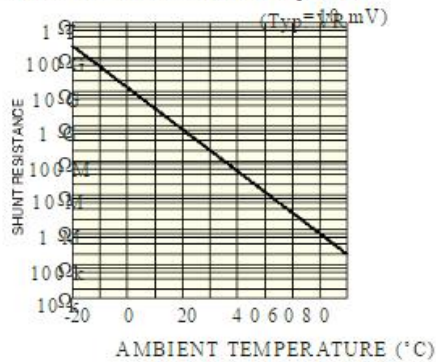
s Rise time vs. load resistance



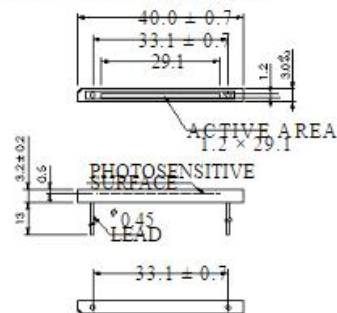
s Dark current vs. reverse voltage



s Shunt resistance vs. ambient temperature



s Dimensional outline (unit: mm)



→ The resin coating may extend a maximum of 0.1 mm beyond the upper surface of the package.