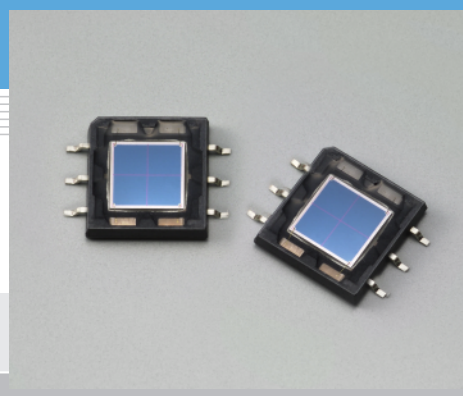


Si PIN photodiode

S7479

Large active area (5 × 5 mm) quadrant photosensor with high reliability



S7479 is a quadrant PIN photodiode having a large active area (5 × 5 mm) and surface-mount flat package with leads. S7479 offers high sensitivity and improved characteristics in temperature cycle test.

Features

- Surface-mount plastic package (9 × 9.6 mm)
- Large active area: 5 × 5 mm/4 elements
- Operating temperature range: -40 to +100 °C
Storage temperature range : -40 to +125 °C
- High sensitivity: 0.72 A/W ($\lambda=960$ nm)

Applications

- Automobile sensor
(Vehicle and traffic information system, laser radar, front window frost sensor, rain sensor)
- Spatial light transmission

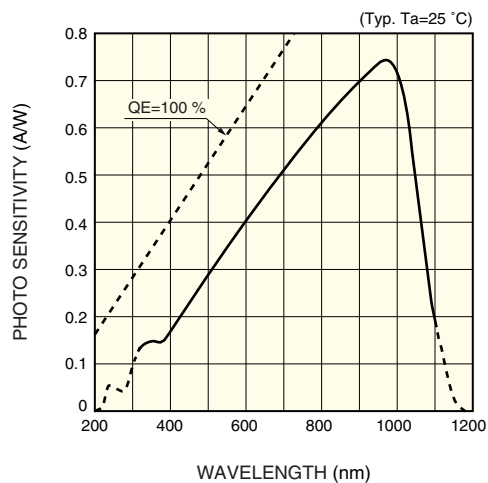
■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	V _R Max.	20	V
Operating temperature	T _{opr}	-40 to +100	°C
Storage temperature	T _{stg}	-40 to +125	°C

■ Electrical and optical characteristics (Ta=25 °C, per 1 element, unless otherwise noted)

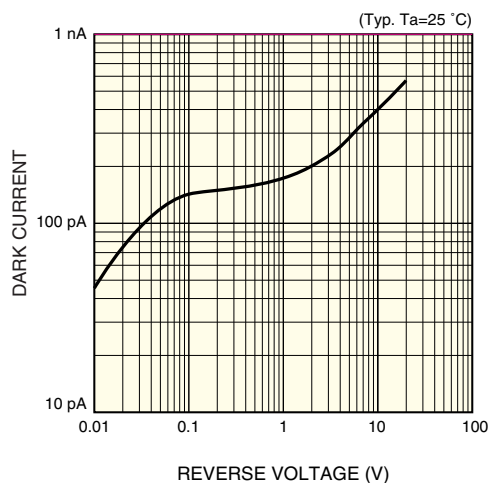
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	320 to 1100	-	nm
Peak sensitivity wavelength	λ_p		-	960	-	nm
Photo sensitivity	S	$\lambda=\lambda_p$	0.6	0.72	-	A/W
Short circuit current	I _{sc}	100 lx, 2856 K	-	6.5	-	μA
Dark current	I _D	V _R =10 V, all element	-	0.4	2	nA
Cut-off frequency	f _c	V _R =10 V, R _L =50 Ω $\lambda=780$ nm, -3 dB	10	20	-	MHz
Terminal capacitance	C _t	V _R =10 V, f=1 MHz	-	10	20	pF
Cross-talk	-	V _R =10 V, $\lambda=780$ nm	-	2	5	%

■ Spectral response



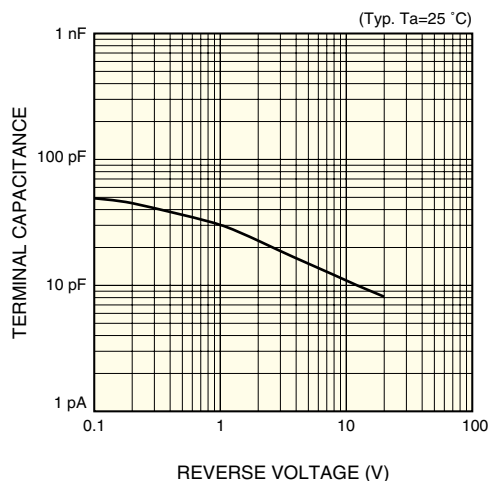
KMPDB0138EA

■ Dark current vs. reverse voltage



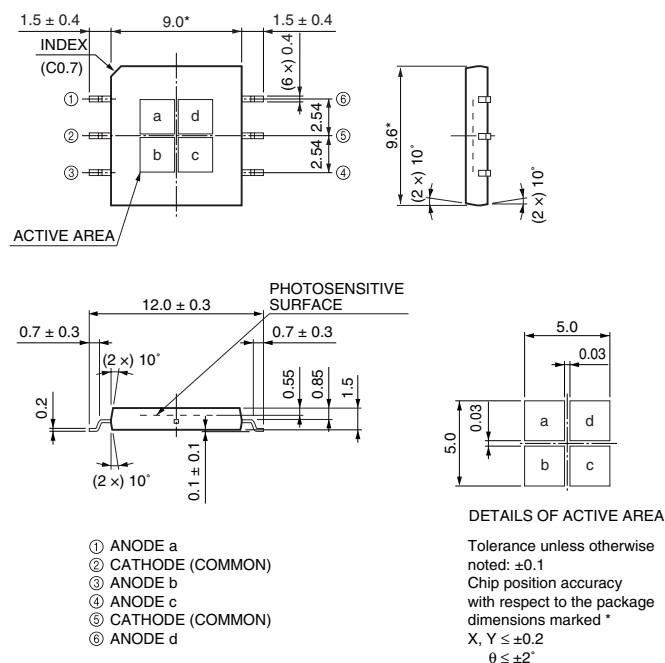
KMPDB0138EA

■ Terminal capacitance vs. reverse voltage



KMPDB0140EA

■ Dimensional outline (unit: mm)



KMPDA0074EA

HAMAMATSU

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