

Low Capacitance PIN Photodiodes

Series 7



Special characteristics:

- long-term stability
- high shunt resistance and high sensitivity

Application
Optimized
Solutions

General ratings

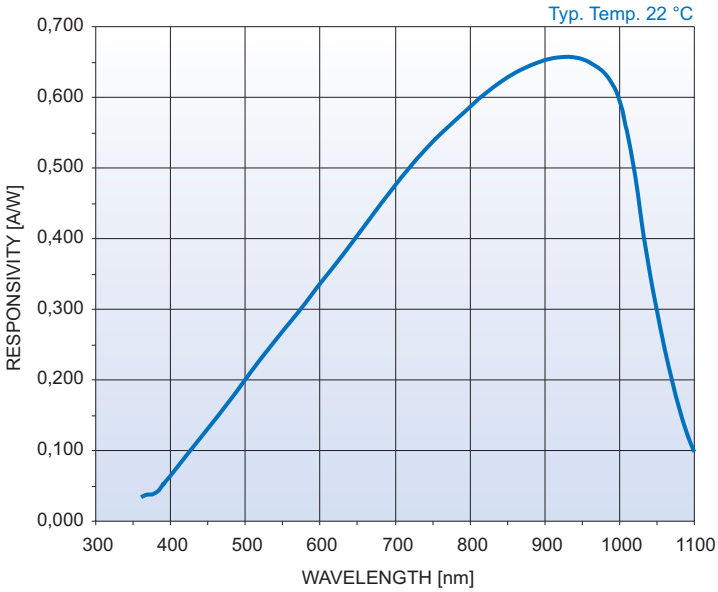
Type No.		Order number	Active area		Dimensional outline	Absolute maximum ratings	
Chip	Package		Size (mm)	Area (mm ²)	Window material	Operating temperatur	Storage temperatur
PC1-7	TO52S1	500094	∅ 1.13	1	clear glass	-40 ... +100 °C	-55 ... +125 °C
PC1-7	TO52S3	500095					
PC2-7	TO5	500101	∅ 1.60	2			
PC5-7	TO5	500108	∅ 2.52	5			
PC10-7	TO5	500088	∅ 3.57	10			
PC20-7	TO8	500099	∅ 5.05	20			
PC50-7	TO8S	500105	∅ 7.98	50			
PC100-7	BNC	500084	∅ 11.28	100		+15 ... +60 °C	-15 ... +80 °C
PC100-7	U1	500085					
PS100-7	CERpin	500150	10 x 10	200		-20 ... +60 °C	-20 ... +80 °C
PR200-7	CER	500134	10 x 20	200			

Electrical and optical characteristics (Typical values at 22 °C)

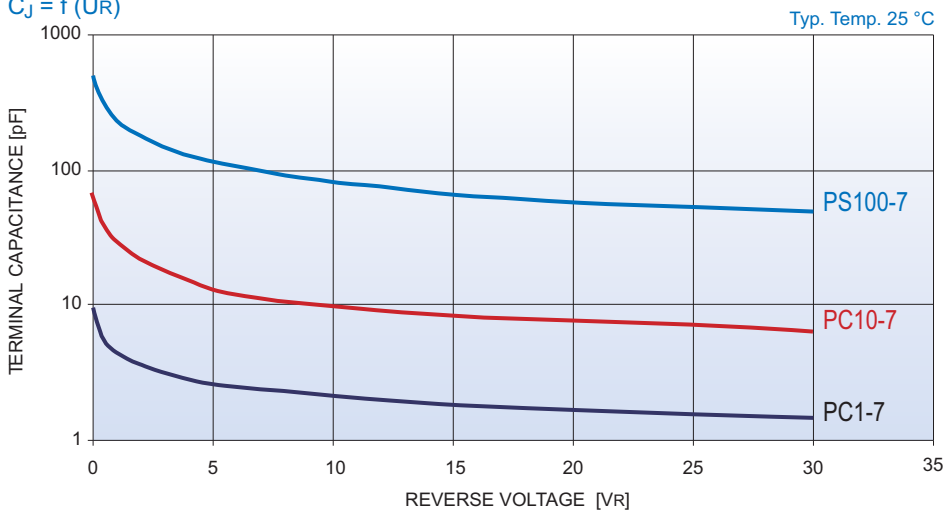
Type No.	Spectral Responsivity		Dark current (nA)		Capacitance (pF) f _m = 100 kHz		Rise time 850 nm, 50 Ω		N.E.P (W/Hz ^{1/2})	
	at 950 nm (AW)	at 1064 nm (AW)	at 12 V	at 80 V	at 12 V	at 80 V	at 12 V (ns)	at 80 V (ns)		
PC1-7 TO52S1	typ. 0.65	typ. 0.2	0.5	-	2.0	-	30.0	-	1* 10 ⁻¹⁴	
PC1-7 TO52S3					3.0					35.0
PC2-7 TO5					5.0					45.0
PC5-7 TO5					10.0					50.0
PC10-7 TO5					20.0					
PC20-7 TO8					35.0					
PC50-7 TO8S			5.0	55.0						
PC100-7 BNC			80.0	50.0	4* 10 ⁻¹⁴					
PC100-7 U1			0.5							
PS100-7 CERpin			2.0	max. 15	140.0	65.0	60.0	25.0	6* 10 ⁻¹⁴	

Low Dark Current Pin Photodiodes - Series 7

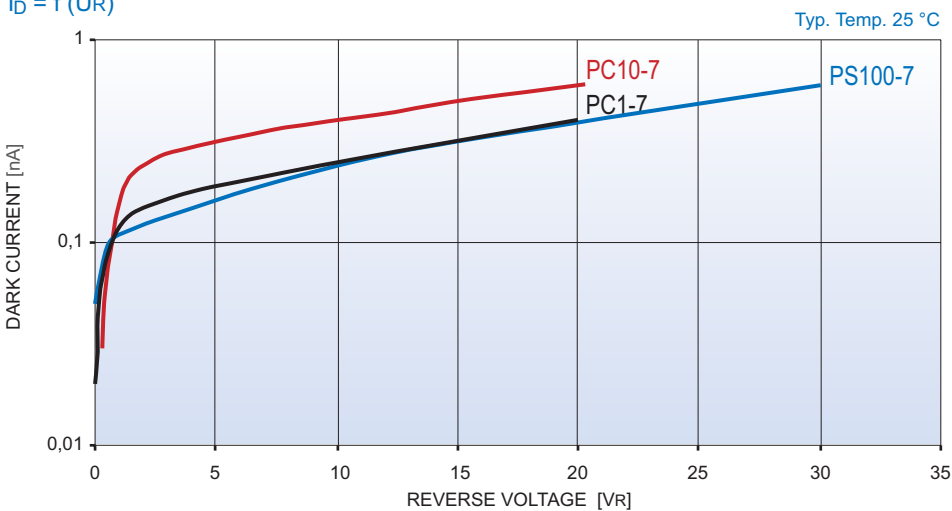
Typical Spectral Response



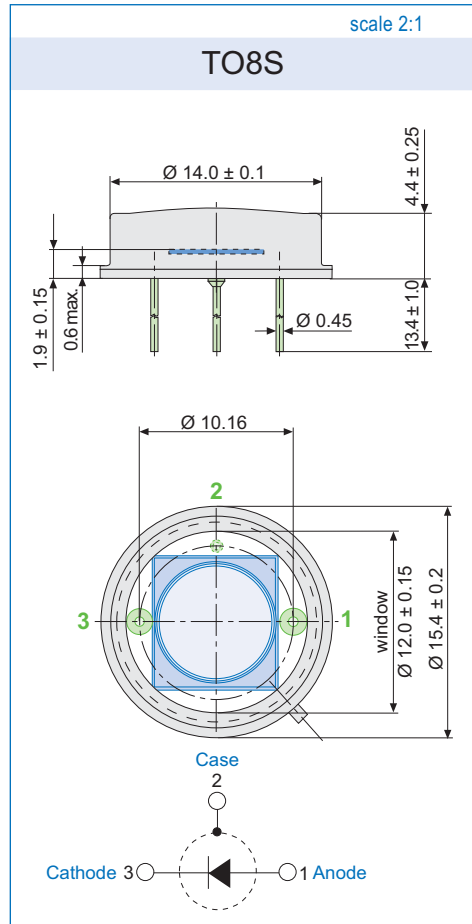
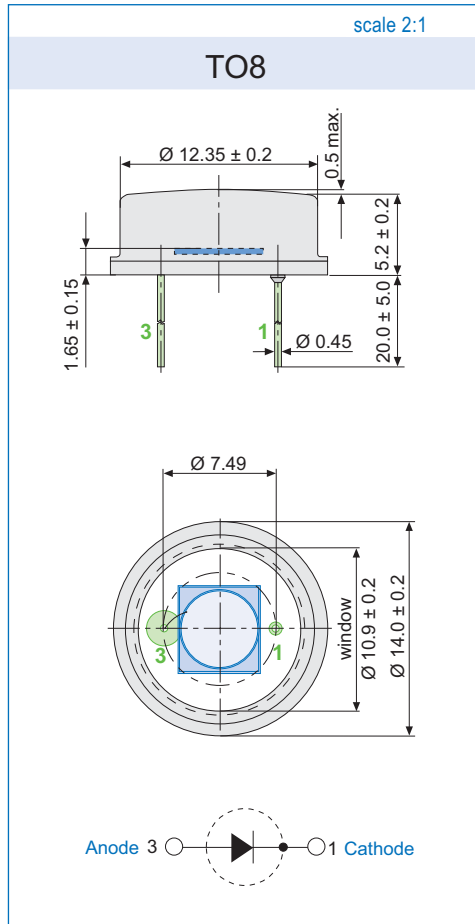
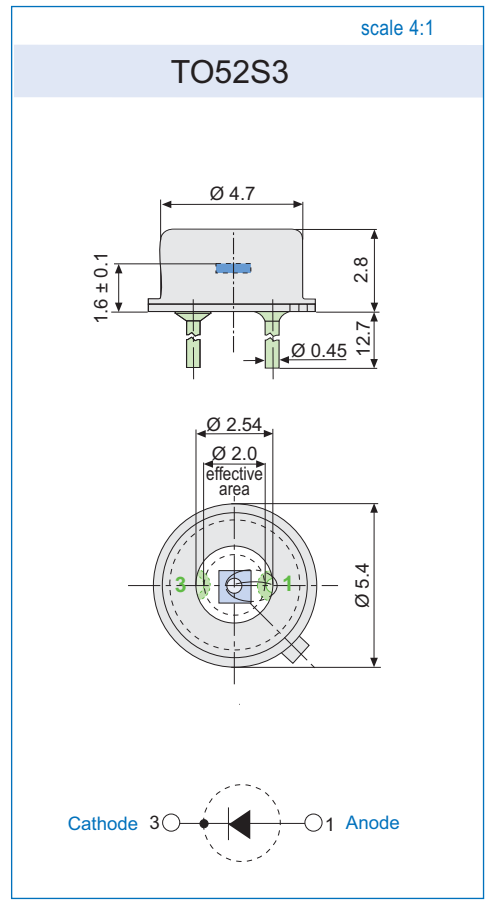
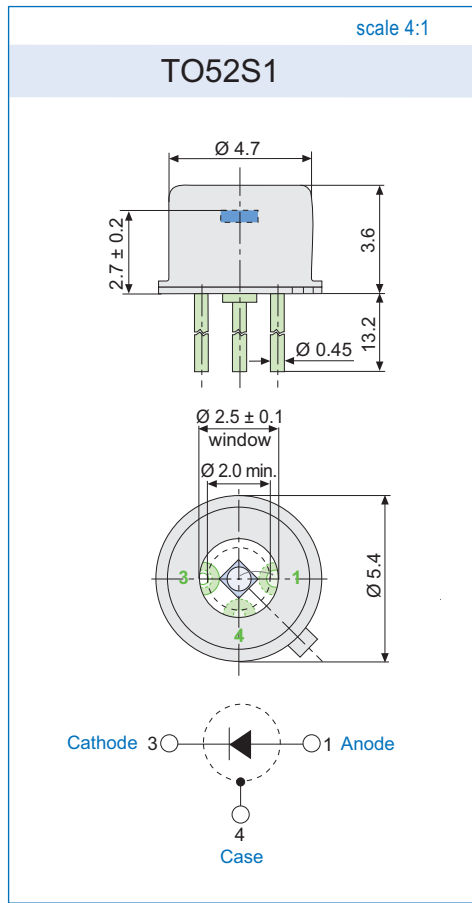
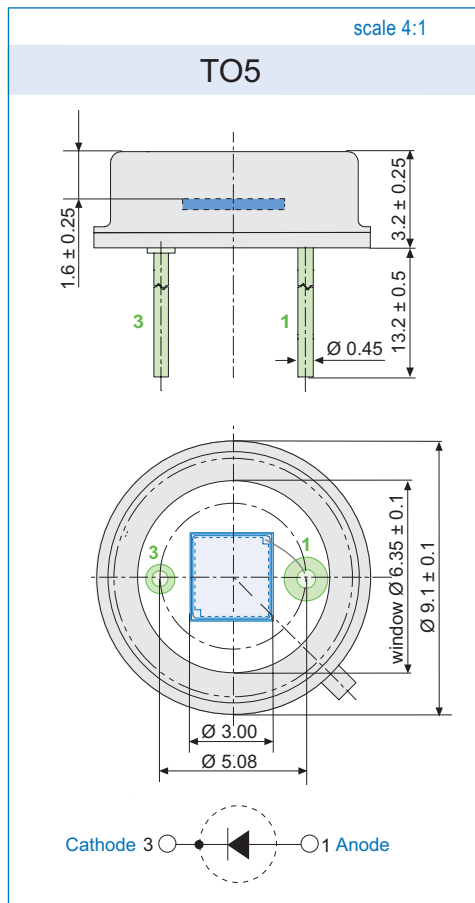
Terminal Capacitance vs. Reverse Voltage
 $C_J = f(U_R)$



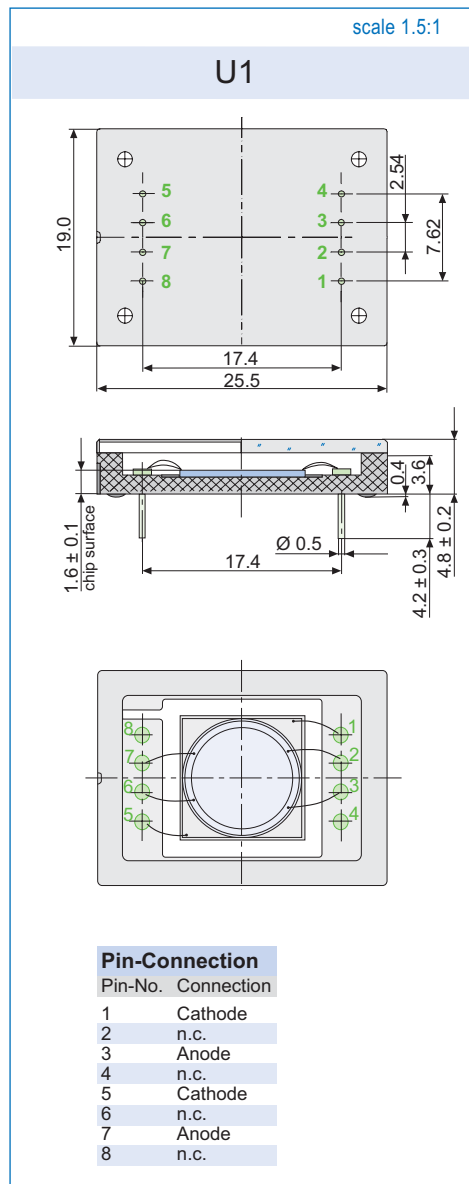
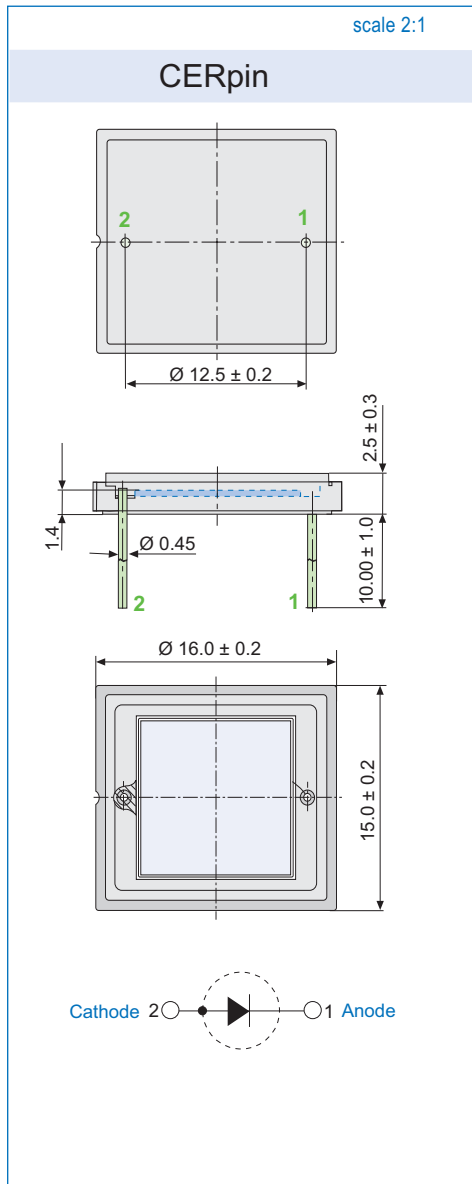
Dark Current vs. Reverse Voltage
 $I_D = f(U_R)$



Low Dark Current Pin Photodiodes - Series 7



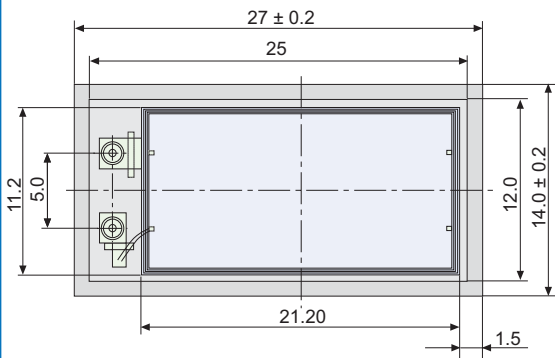
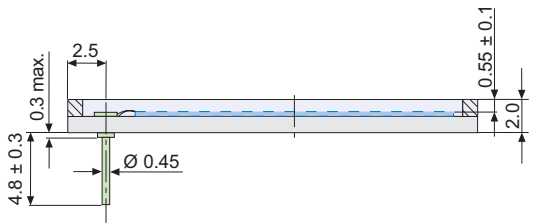
Low Dark Current Pin Photodiodes - Series 7



Low Dark Current Pin Photodiodes - Series 7

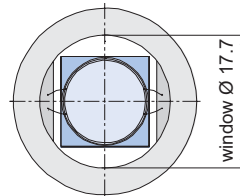
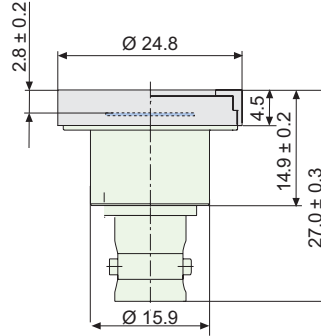
scale 2:1

PR200-7 CERpin



scale 1:1

BNC



Centre pin = Cathode
Case = Anode