

GaAsP Photodiodes

4229609 HAMAMATSU CORP

89D 02006 D T-41-51

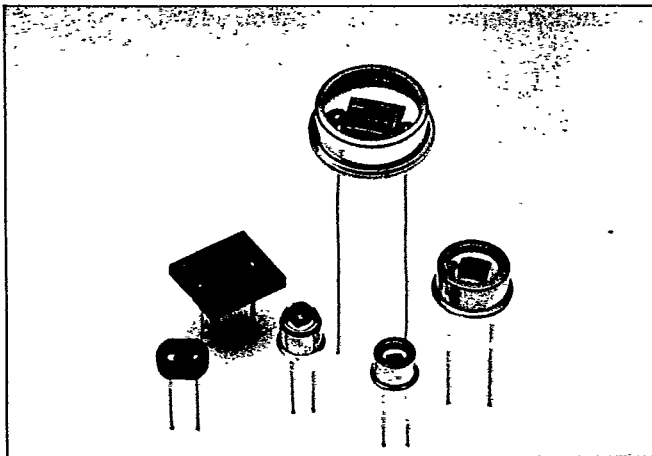
Type No.	Outlines Window Materials (mm)	Package (mm)	Photosensitive Surface		Spectral Response		Characteristics (25°C)				
			Size (mm)	Effective Area (mm ²)	Range (nm)	Peak Wave-length (nm)	Typical Radiant Sensitivity (A/W)			Short Circuit Current I _{sh} , 100 lux	
							Peak Wave-length	560nm GaP LED	633nm He-Ne Laser	Min (μA)	Typ. (μA)

Diffusion Type (for Visible Light)

G1115	①/K	TO-18	1.3 x 1.3	1.66	300~680	610±30	0.3	0.29	0.29	0.12	0.15
G1116	⑥/K	TO-5	2.7 x 2.7	7.26						0.45	0.6
G1117	⑩/K	TO-8	5.6 x 5.6	29.3						2	2.5
G1118	②/R	5 x 6	1.3 x 1.3	1.66						0.12	0.15
G1120	⑨/R	8.9 x 10.1	5.6 x 5.6	29.3						2	2.5
G1122	②/L	TO-18	1.3 x 1.3	1.66						0.4	0.5

Diffusion Type (Extended Red Sensitivity Type)

G1735	①/K	TO-18	1.3 x 1.3	1.66	400~760	710±30	0.4	0.22	0.29	0.2	0.25
G1736	⑥/K	TO-5	2.7 x 2.7	7.26						0.8	1.1
G1737	⑩/K	TO-8	5.6 x 5.6	29.3						3.5	4.5
G1738	②/R	5 x 6	1.3 x 1.3	1.66						0.2	0.25
G1740	⑨/R	8.9 x 10.1	5.6 x 5.6	29.3						3.5	4.5
G1742	②/L	TO-18	1.3 x 1.3	1.66						0.7	0.8



① See pages 34 to 37 for outlines.

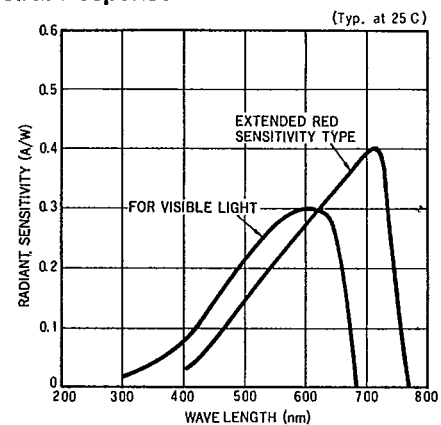
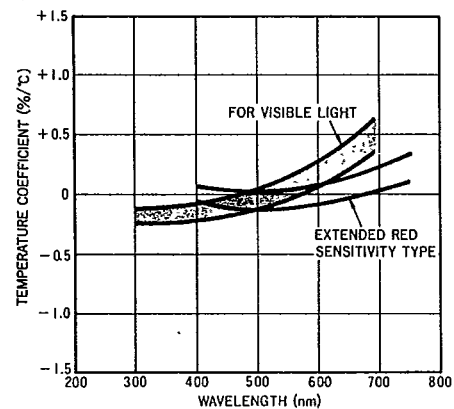
Window materials are

K: Borosilicate glass

L: Lens type borosilicate glass

R: Resin coating

• Spectral Response

• Temperature Characteristic of I_{sh}

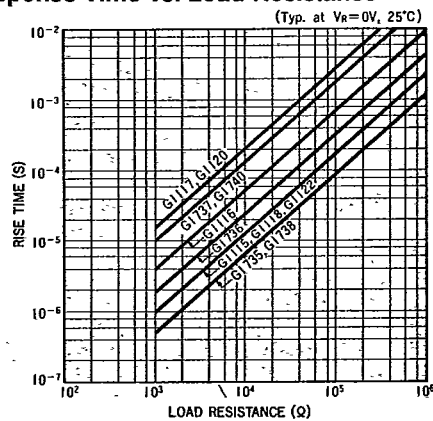
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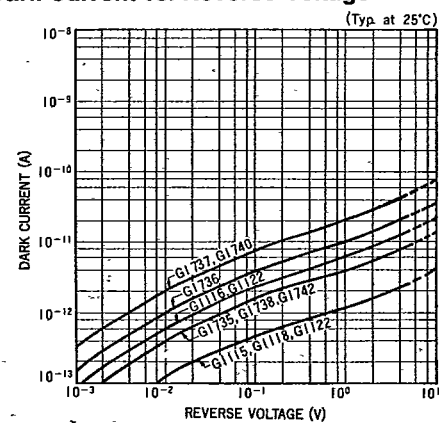
D T-41-51

Characteristics (25°C)									Absolute Maximum Ratings			Type No.
Dark Current, I_d Max.		Temperature Dependence of Dark Current Typ. (Times/°C)	Shunt Resistance R_{sh} $V_R = 10mV$		Junction Capacitance C_j $V_R = 0V$ Typ. (pF)	Rise Time t_r $V_R = 0V$ $R_L = 1k\Omega$ Typ. (μs)	NEP Typ. ($W/Hz^{1/2}$)	D^* Typ. ($cm \cdot Hz^{1/2}/W$)	Reverse Voltage V_{Rmax} (V)	Temperature Range		
$V_R = 10mV$ (pA)	$V_R = 1V$ (pA)		Min. (G Ω)	Typ. (G Ω)						Operating (°C)	Storage (°C)	
1	10	1.07	10	80	300	1	9×10^{-16}	1×10^{14}	5	$-10 \sim +60$	-20 ~ +80	G1115
2.5	25		4	30	1400	4	2×10^{-15}				G1116	
5	50		2	15	6000	15	3×10^{-15}				G1117	
1	10		10	80	300	1	9×10^{-16}				-20 ~ +70	G1118
5	50		2	15	6000	15	3×10^{-15}				G1120	
1	10		10	80	300	1	9×10^{-16}				-20 ~ +80	G1122
2	20	1.07	5	25	250	0.5	2×10^{-15}	6×10^{13}	5	$-10 \sim +60$	-20 ~ +80	G1735
5	50		2	10	1200	1.8	3×10^{-15}				G1736	
10	100		1	5	4500	10	7×10^{-15}				G1737	
2	20		5	25	250	0.5	2×10^{-15}				-20 ~ +70	G1738
10	100		1	5	4500	10	7×10^{-15}				G1740	
2	20		5	25	250	0.5	2×10^{-15}				-20 ~ +80	G1742

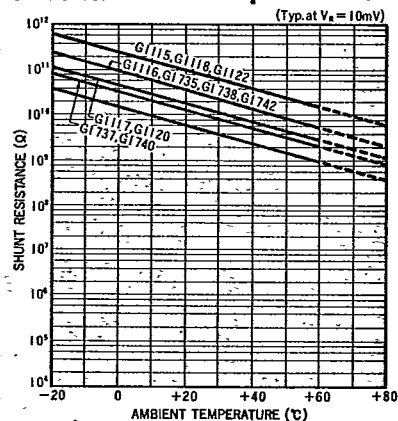
• Response Time vs. Load Resistance



• Dark Current vs. Reverse Voltage



• Shunt Resistance vs. Temperature



• Linearity

