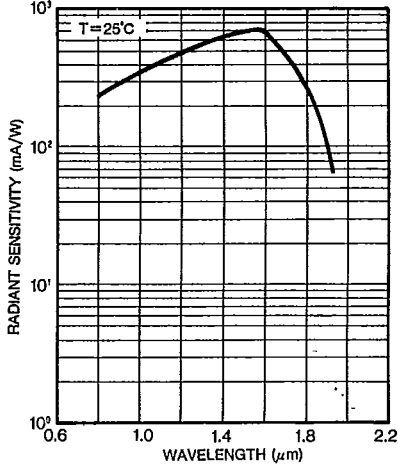


High-Speed Ge Photodiodes

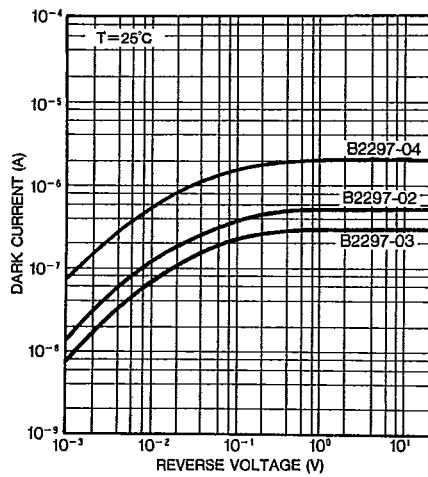
Type No.	Out-line No. (P.28)	Package	Window Material [Ⓐ]	Effective Sensitive Area Size (mm)	Effective Sensitive Area (mm ²)	Characteristics					
						Measurement Temp. (°C)	Peak Responsivity Wavelength λ _p (μm)	IR Cutoff Wave-length λ _c (λm)	Radiant Responsivity at λ _p (mA/W)	Short Circuit Current I _{sh} 100 lux, 2856K	
										Min. (μA)	Typ. (μA)
B2297-02	①	3 pin TO-18	B	φ0.3	0.07	+25	1.55	1.9	700	200	300
B2297-03		3 pin TO-18	B	φ0.1	0.008	+25	1.55	1.9	700	80	100
B2297-04		3 pin TO-18	B	φ0.5	0.2	+25	1.55	1.9	700	800	1000

Ⓐ B: Borosilicate glass window

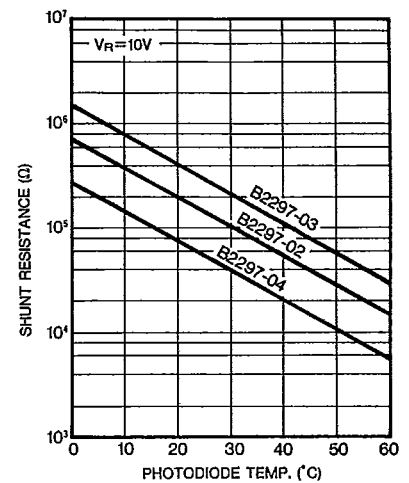
● Spectral Response



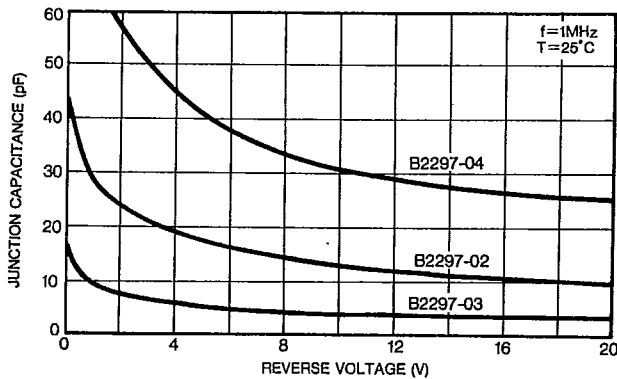
● Dark Current vs. Reverse Voltage



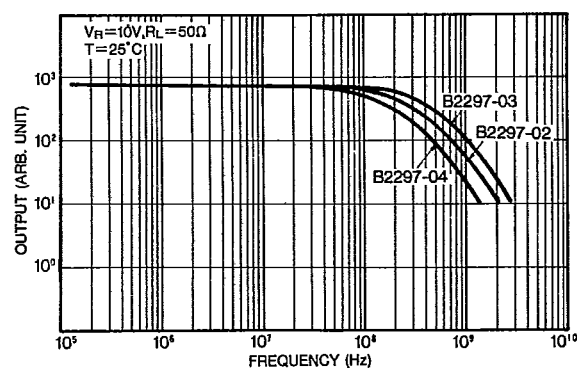
● Shunt Resistance vs. Temperature



● Junction Capacitance vs. Reverse Voltage

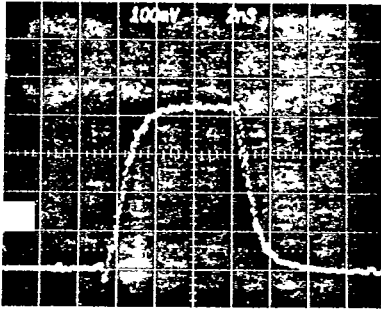


● Frequency Response

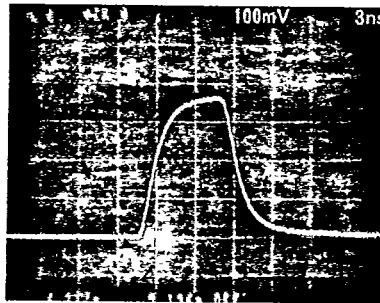


Characteristics										Temperature Range		Type No.
Dark Current I_d $V_R=10V$		Shunt Resistance R_{sh} $V_R=10mV$ (k Ω)	NEP at λp (W/Hz ^{1/2})	D * at λp (cmHz ^{1/2} W)	Junction Capacitance C_j $V_R=10V$, $f=1MHz$ (pF)	Rise Time t_r $V_R=10V$ $R_L=50\Omega$ 10~90% (ns)	Fall Time $V_R=10V$ $R_L=50\Omega$ 10~90% (ns)	Cutoff Frequency f_c $V_R=10V$, $R_L=50\Omega$ (MHz)	Maximum Reverse Voltage V_R max. (V)	Operating	Storage	
Typ. (μA)	Max. (μA)									($^{\circ}C$)	($^{\circ}C$)	
0.5	2	150	5×10^{-13}	5×10^{10}	12	1.5	1.5	200	20	-30~+60	-55~+80	B2297-02
0.3	1	300	5×10^{-13}	2×10^{10}	4	0.5	0.5	700	20	-30~+60	-55~+80	B2297-03
2	5	50	1×10^{-12}	1.5×10^{11}	30	3.0	4.0	100	20	-30~+60	-55~+80	B2297-04

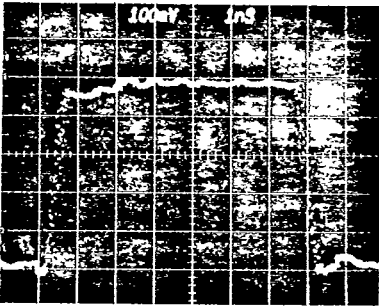
● Output Pulse Waveforms
B2297-02



B2297-04

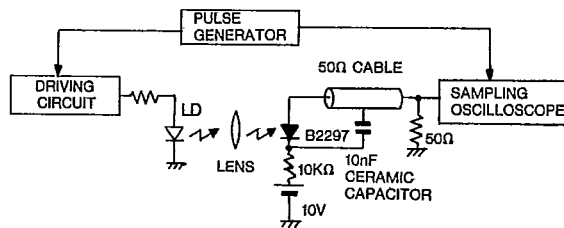


B2297-03

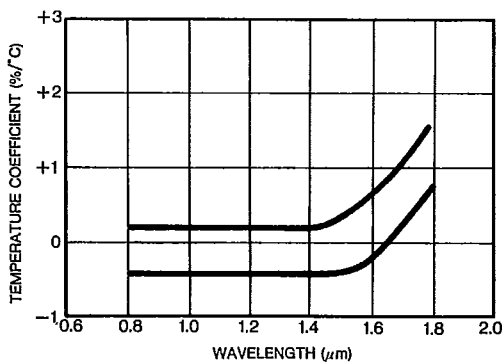


Measuring Block Diagram for Time Response

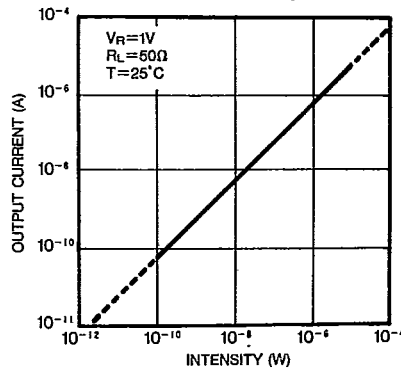
LD: Laser diode (1.3 μm step function light pulse)



● Temperature Coefficient of Responsivity



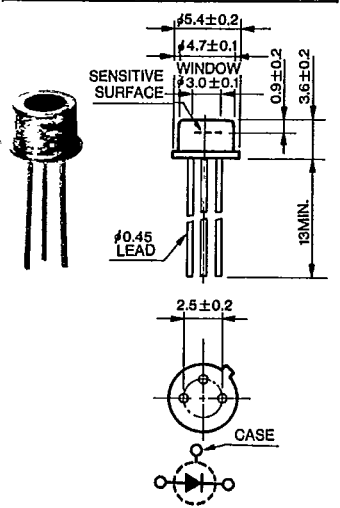
● Linearity (B2297-02)



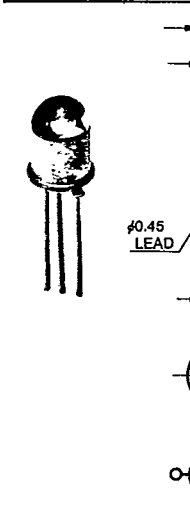
Dimensional Outlines

T-90-20

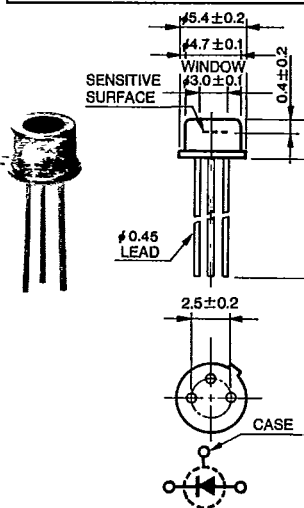
① B1720-04, B2297-02, etc.



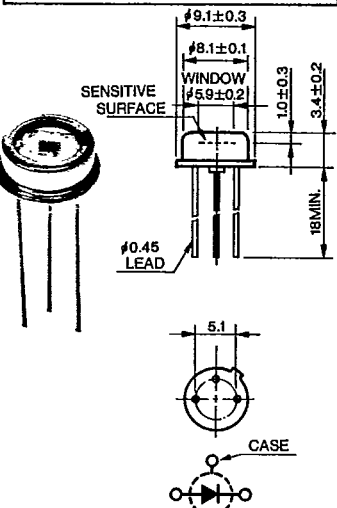
② B1720-05



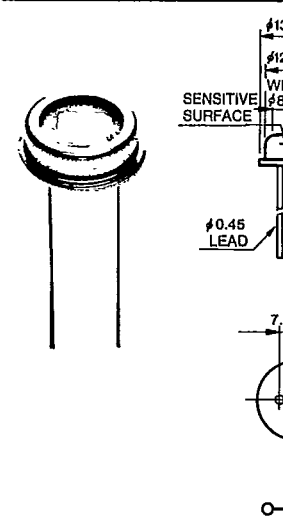
③ B2834, B2834-01



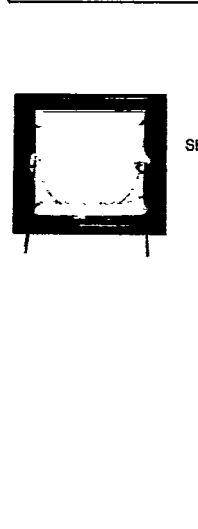
④ B2144, B1918, etc.



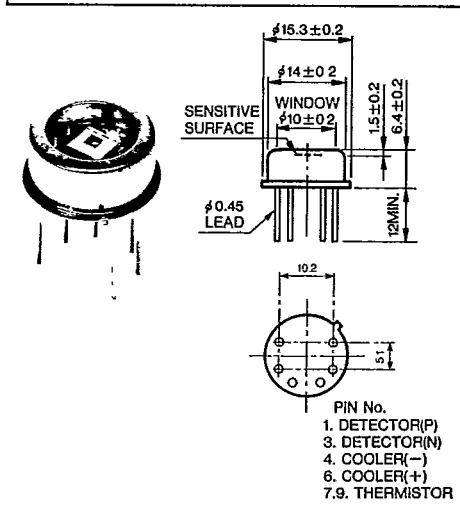
⑤ B1919, B1919-01



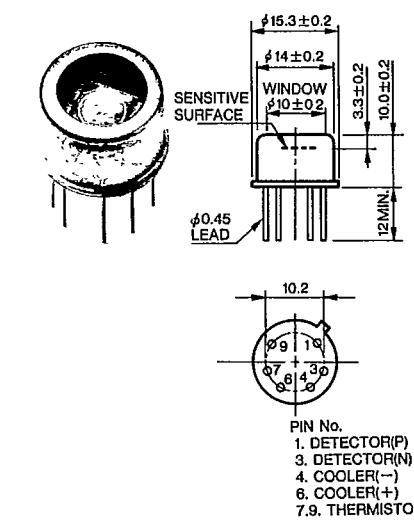
⑥ B1920-01



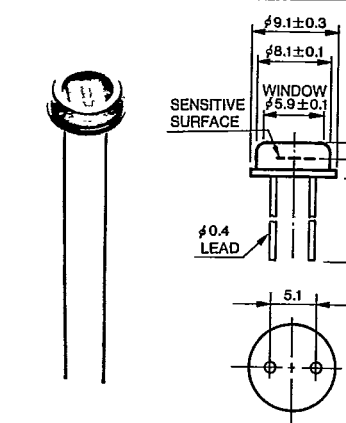
⑦ B2538-01, etc. (1-Stage TE)



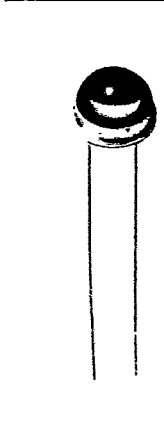
⑧ B2614-01, etc. (2-Stage TE)



⑨ P394A, P394R, P791

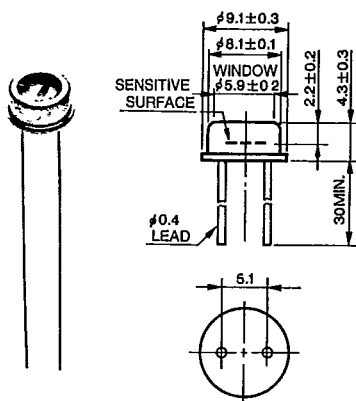


⑩ P3226

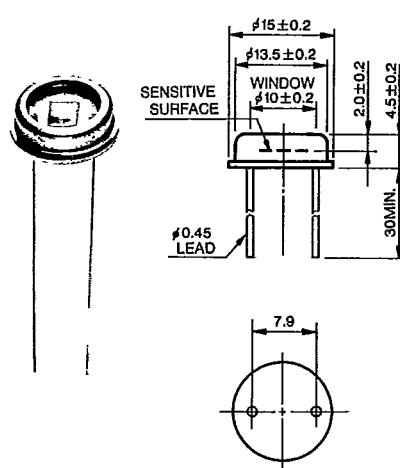


Unit: mm

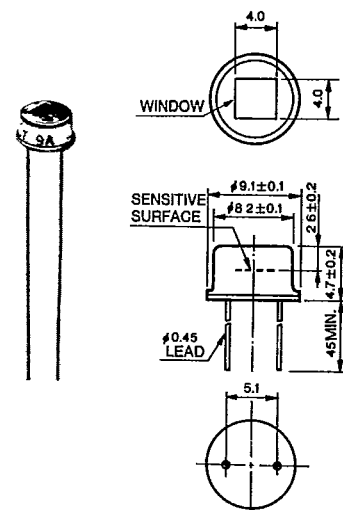
11 P394



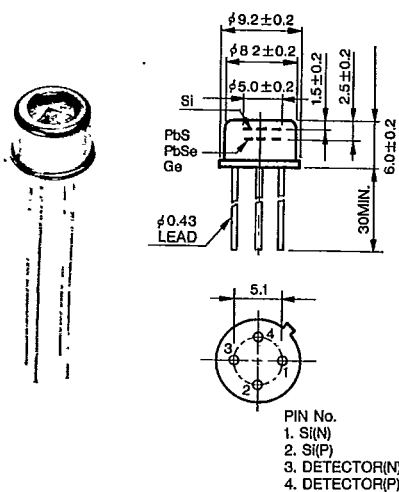
12 P397



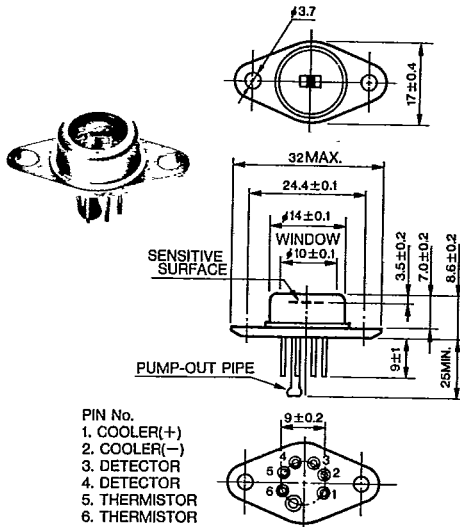
13 P3207



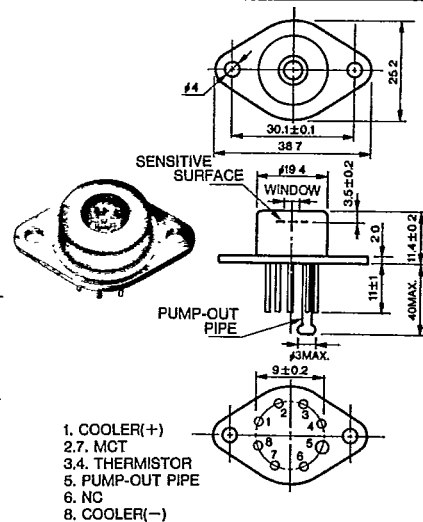
14 K1713-01,K1713-02,K1713-03



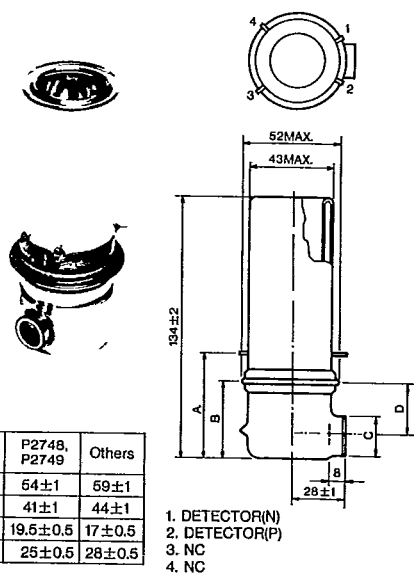
15 P1026,P903 (1-Stage TE)



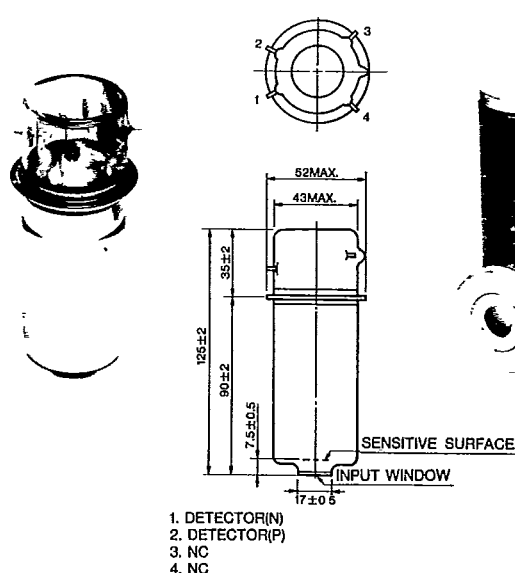
16 P2750 (3-Stage TE)



17 P2748,B2123,P819, etc.



18 P839-02



19 P3257

