

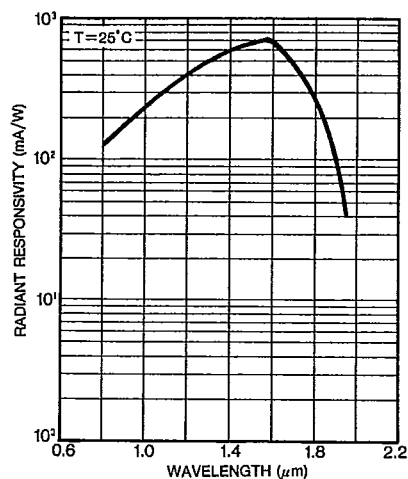
Ge Photodiodes: Uncooled Types

T-41-41

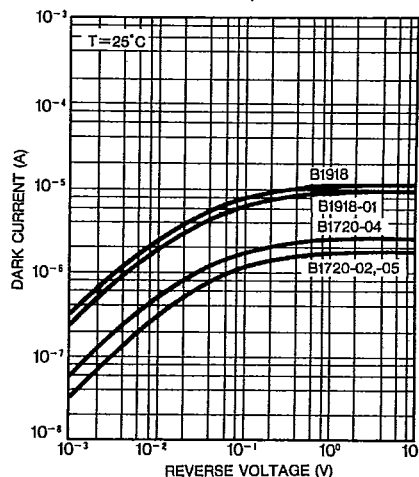
Type No.	Out-line No. (P.28/29)	Package	Window Material ^A	Effective Sensitive Area Size (mm)	Effective Sensitive Area (mm ²)	Characteristics					
						Measurement Temp. (°C)	Peak Responsivity Wavelength λ_p (μm)	IR Cutoff Wavelength λ_c (μm)	Radiant Responsivity at λ_p (mA/W)	Short Circuit Current I _{sh} 100 lux, 2856K	
										Min. (μA)	Typ. (μA)
B1720-04	①	3 pin TO-18	B	1×1	1	+25	1.55	1.9	700	1.6	2
B1720-02	①	3 pin TO-18	B	$\phi 1$	0.8	+25	1.55	1.9	700	1	1.4
B1720-05	②	3 pin TO-18	B (Lens type)	$\phi 1$	0.8	+25	1.55	1.9	700	9	12
B2144	④	3 pin TO-5	B	2×2	4	+25	1.55	1.9	700	5	7
B2144-01		3 pin TO-5	B	$\phi 2$	3.1	+25	1.55	1.9	700	4	6
B1918		3 pin TO-5	B	3×3	9	+25	1.55	1.9	700	13	16
B1918-01		3 pin TO-5	B	$\phi 3$	7.1	+25	1.55	1.9	700	10	13
B1919	⑤	TO-8	B	5×5	25	+25	1.55	1.9	700	32	40
B1919-01		TO-8	B	$\phi 5$	19.6	+25	1.55	1.9	700	24	30
B1920-01	⑥	Ceramic	B	$\phi 10$	78.5	+25	1.55	1.9	700	90	120

^A B: Borosilicate glass window

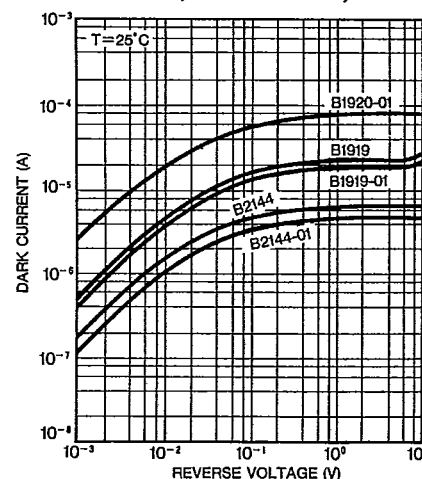
● Spectral Response



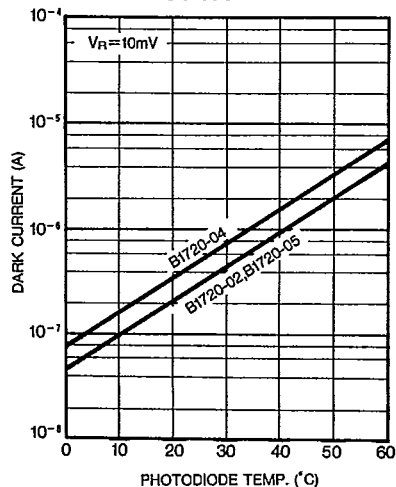
● Dark Current vs. Reverse Voltage for B1720 Series, B1918 Series



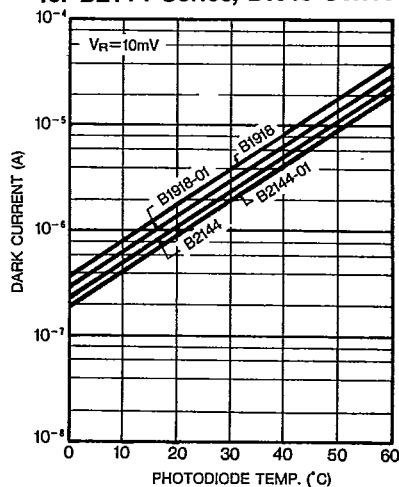
● Dark Current vs. Reverse Voltage for B2144 Series, B1919 Series, B1920-01



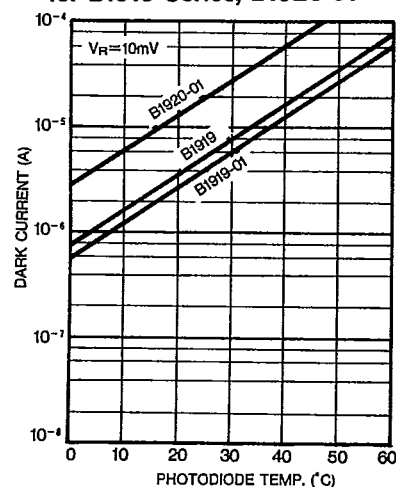
● Dark Current vs. Temperature for B1720 Series



● Dark Current vs. Temperature for B2144 Series, B1918 Series

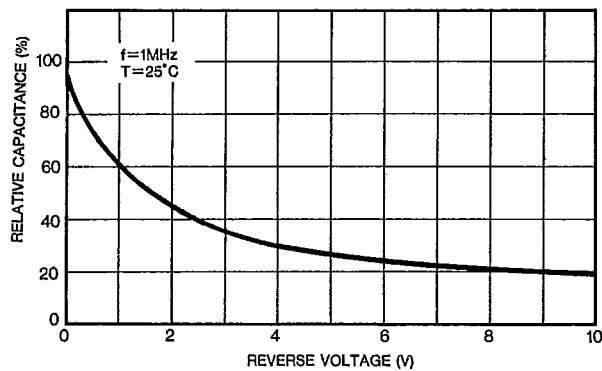


● Dark Current vs. Temperature for B1919 Series, B1920-01

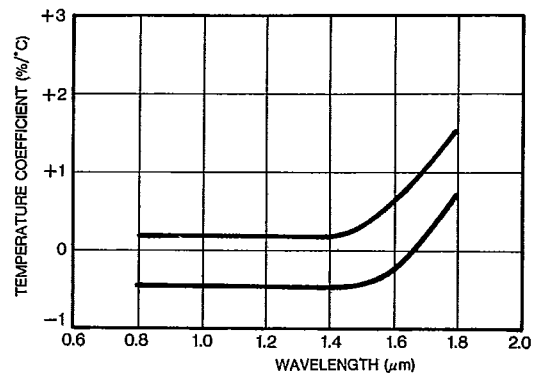


Characteristics							Maximum Reverse Voltage V _R max.	Temperature Range		Type No.
Dark Current I _d V _R =10mV		Shunt Resist- ance R _{sh} V _R =10mV (kΩ)	NEP at λ p (W/Hz ^{1/2})	D * at λ p (cmHz ^{1/2} W)	Junction Capacitance C _j V _R =1V, f=1MHz (nF)	Rise Time t _r V _R =1V, R _L =1kΩ 10~90% (μs)		Operating (°C)	Storage (°C)	
Typ. (μA)	Max. (μA)									
0.5	1	20	8×10 ⁻¹³	1×10 ¹¹	0.3	1	10	-30~+60	-55~+80	B1720-04
0.3	0.6	33	8×10 ⁻¹³	1×10 ¹¹	0.2	1	10	-30~+60	-55~+80	B1720-02
0.3	0.6	33	8×10 ⁻¹³	1×10 ¹¹	0.2	1	10	-30~+60	-55~+80	B1720-05
1.5	3	7	1×10 ⁻¹²	1×10 ¹¹	2	5	10	-30~+60	-55~+80	B2144
1.2	2.4	8	1×10 ⁻¹²	1×10 ¹¹	1.6	5	10	-30~+60	-55~+80	B2144-01
2.5	5	4	2×10 ⁻¹²	1×10 ¹¹	4	10	10	-30~+60	-55~+80	B1918
2	4	5	2×10 ⁻¹²	1×10 ¹¹	3	10	10	-30~+60	-55~+80	B1918-01
5	10	2	2×10 ⁻¹²	1×10 ¹¹	8	20	5	-30~+60	-55~+80	B1919
4	8	2.5	2×10 ⁻¹²	1×10 ¹¹	6	20	5	-30~+60	-55~+80	B1919-01
20	40	0.5	4×10 ⁻¹²	1×10 ¹¹	20	50	3	-30~+60	-55~+80	B1920-01

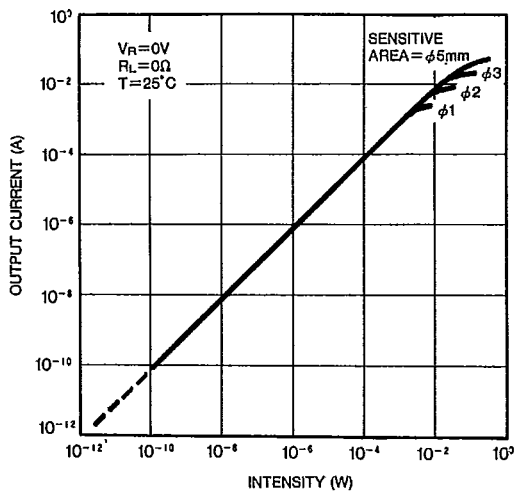
● Junction Capacitance vs. Reverse Voltage



● Temperature Coefficient of Responsivity



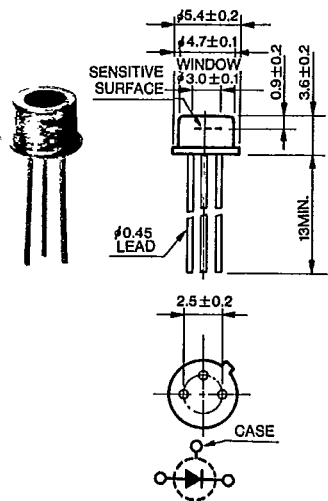
● Linearity



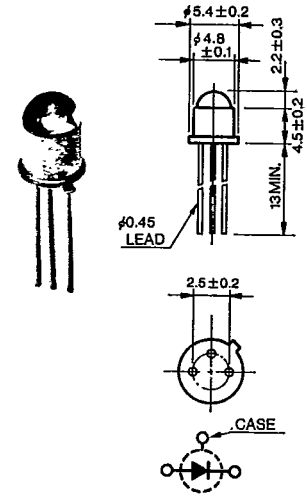
Dimensional Outlines

T-90-20

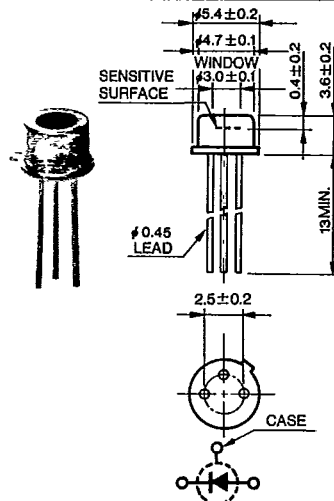
① B1720-04, B2297-02, etc.



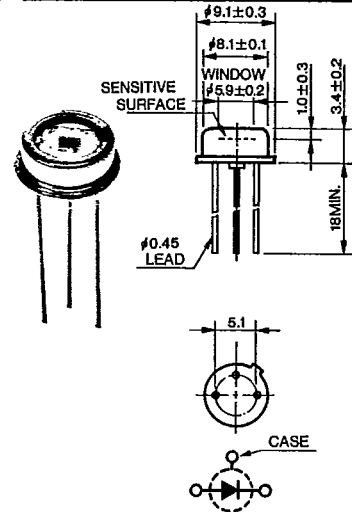
② B1720-05



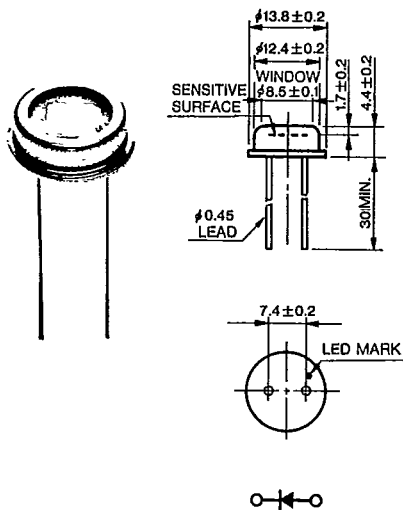
③ B2834, B2834-01



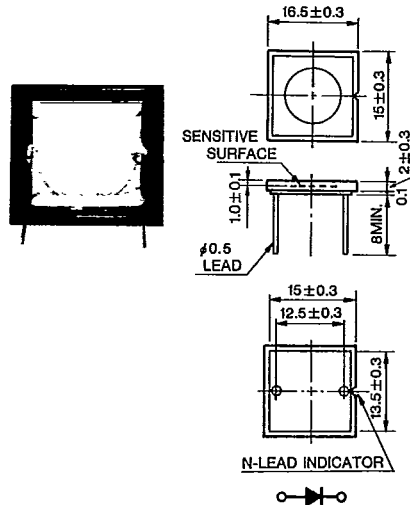
④ B2144, B1918, etc.



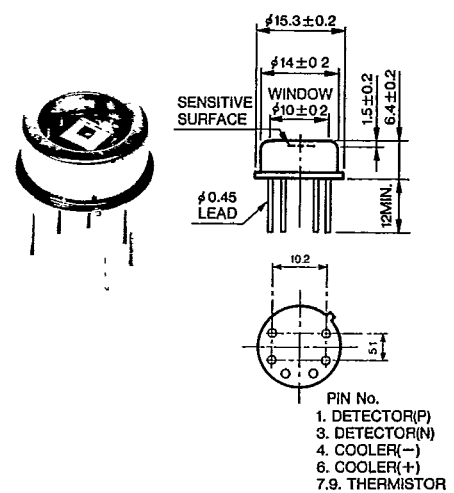
⑤ B1919, B1919-01



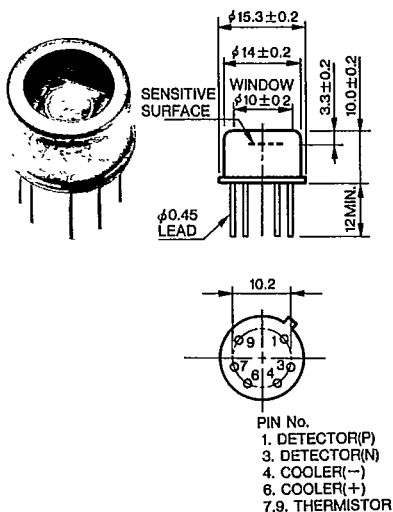
⑥ B1920-01



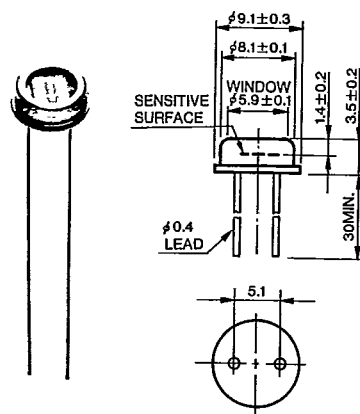
⑦ B2538-01, etc. (1-Stage TE)



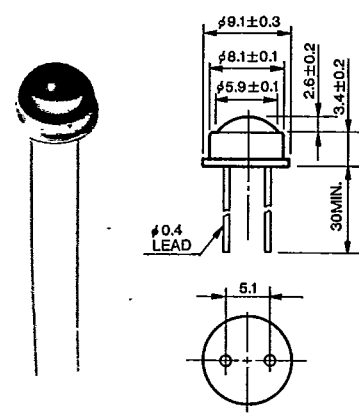
⑧ B2614-01, etc. (2-Stage TE)



⑨ P394A, P394R, P791

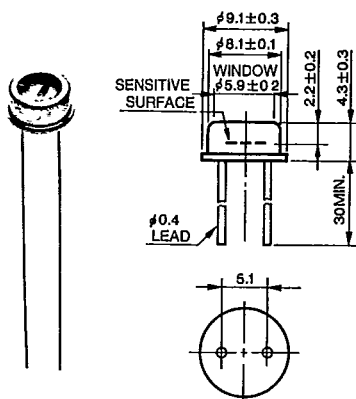


⑩ P3226

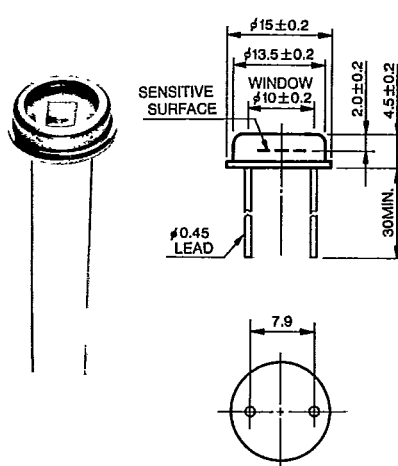


PIN No.
 1. DETECTOR(P)
 3. DETECTOR(N)
 4. COOLER(-)
 6. COOLER(+)
 7.9. THERMISTOR

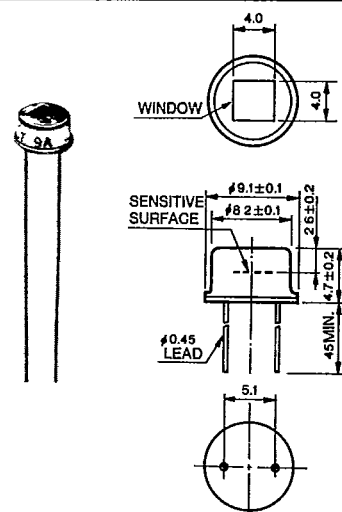
11 P394



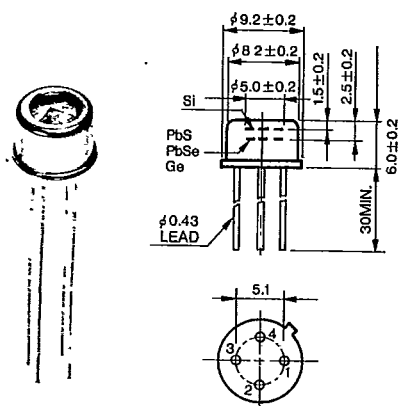
12 P397



13 P3207

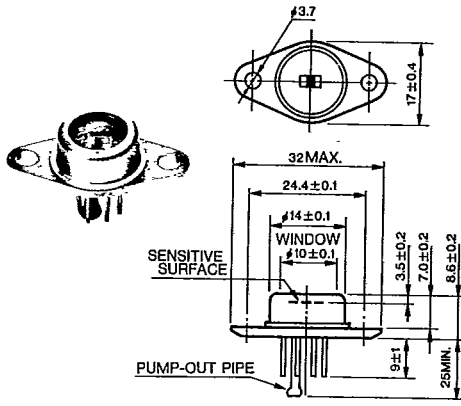


14 K1713-01,K1713-02,K1713-03



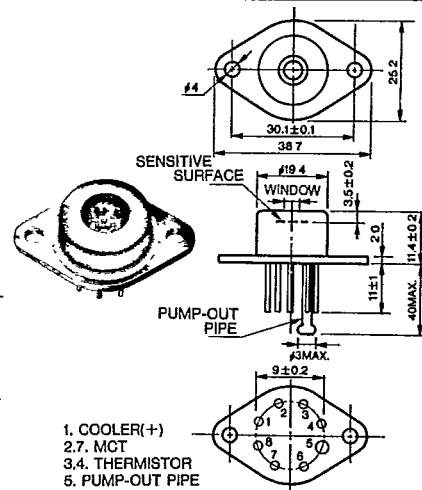
PIN No.
1. Si(N)
2. Si(P)
3. DETECTOR(N)
4. DETECTOR(P)

15 P1026,P903 (1-Stage TE)

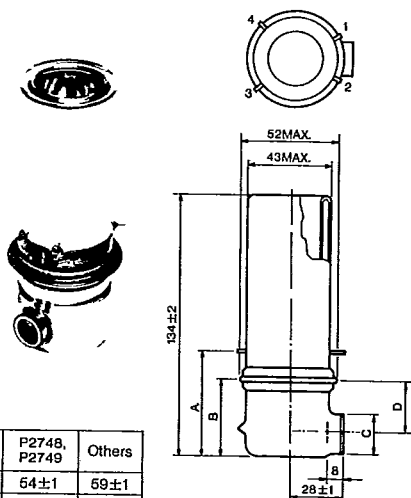


PIN No.
1. COOLER(+)
2. COOLER(-)
3. DETECTOR
4. DETECTOR
5. THERMISTOR
6. THERMISTOR

16 P2750 (3-Stage TE)

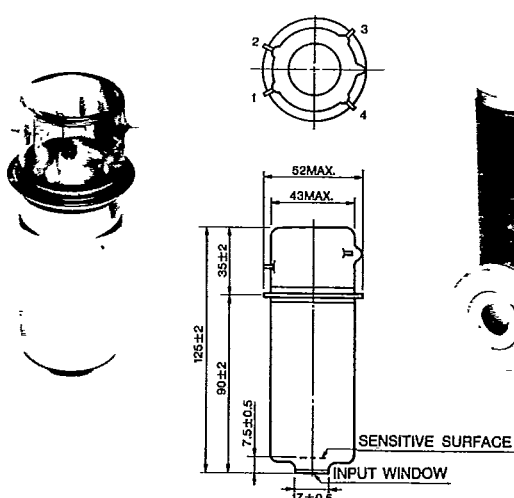


⑪ P2748,B2123,P819, etc.



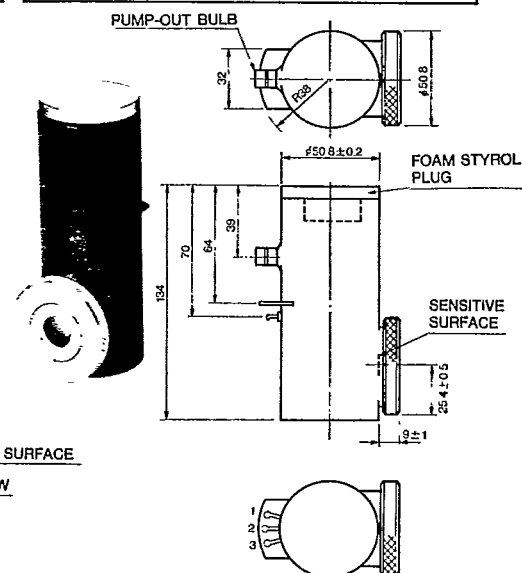
1. DETECTOR(N)
2. DETECTOR(P)
3. NC
4. NC

18 P839-02



1. DETECTOR(N)
2. DETECTOR(P)
3. NC
4. NC

19 P3257



1.3. DETECTOR
2. NG

	P2748, P2749	Others
A	54±1	59±1
B	41±1	44±1
C	19.5±0.5	17±0.5
D	25±0.5	28±0.5