

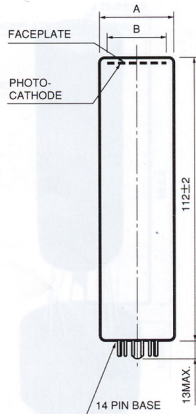
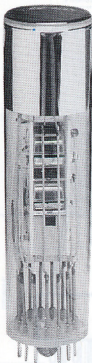
Head-On Type Photomultiplier Tubes

Type No.	Remarks	Spectral Response			Photo-cathode Material	Window Material	Out-line No.	Dynode Structure No. of Stages	Socket Socket Assembly	Maximum Ratings		Cathode Sensitivity	
		Curve Code	Range (nm)	Peak Wave-length (nm)						Anode to Cathode Voltage (Vdc)	Average Anode Current (mA)	Luminous	
												Min.	Typ.

28mm (1-1/8") Dia. Types

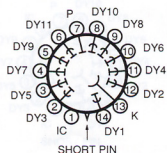
R1459	For VUV range, MgF ₂ window	100M	115 to 200	140	Cs-I	MF	①	B/11	E678-14C*	2500	0.1	—	—
R1460	For VUV to UV range, MgF ₂ win- dow	200M	115 to 320	210	Cs-Te	MF	①	B/11	E678-14C*	1500	0.1	—	—
R431S	For UV range, low profile	200S	160 to 320		Cs-Te	Q	②	B/11	E678-14C*/ 29/30	1500	0.01	—	—
R268	For visible range and scintillation counting	400K	300 to 650	420	BA	K	①	B/11	E678-14C*/ 29/30	1500	0.1	60	95
R2560	Low noise bialkali photocathode, for photon counting	401K		375	BA	K	③	L/10	E678-14C/ 27/28	1500	0.1	30	50
R434	For visible range and scintillation counting	400K		420	BA	K	④	B/9	E678-14C*/ 31	1250	0.1	60	95
R1355	For visible range, fast time re- sponse				BA	K	③	L/10	E678-14C/ 27/28	1900	0.2	60	95
R1282	High temperature, ruggedized type	401K		375	HBA	K	②	B/11	E678-14H*	2500	0.02	—	40
R374	Multialkali photocathode for UV to near IR range	500U	185 to 850	420	MA	U	①	B/11	E678-14C*/ 29/30	1500	0.1	80	150
R1104	High gain variant of R374				MA	U	①	B/11	E678-14C*/ 29/30	1500	0.1	80	140
R5929	Prismatic window, high cathode sensitivity	502K	300 to 900	650	MA	K	①	B/11	E678-14C/ 29/30	1500	0.1	130	230
R2228	Extended red multialkali photo- cathode	501K	300 to 900		MA	K	①	B/11	E678-14C*/ 29/30	1500	0.1	100	200
R316	For visible to near IR range, S-1 photocathode	700K (S-1)	400 to 1200	800	Ag-O-Cs	K	①	B/11	E678-14C*/ 29/30	1500	0.01	10	20
R316-02	Red-enhanced variant of R316, QE=0.06% at 1.06 μm				Ag-O-Cs	K	①	B/11	E678-14C*/ 29/30	1500	0.01	10	20

① R1459, R268, etc.



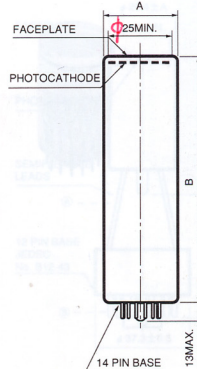
Type No.	R1459 R1460	R268, R374 R316-02 etc.
Bulb	MgF ₂ and Silica bulb	Others
A	φ28.2±0.8	φ28.5±0.5
B	φ23MIN.	φ25MIN.

R2228 has a plano-concave faceplate.

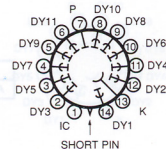


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② R431S, R1282



	R431S	R1282
A	φ28.2±0.8	φ28.5±0.5
B	92±2	97±2



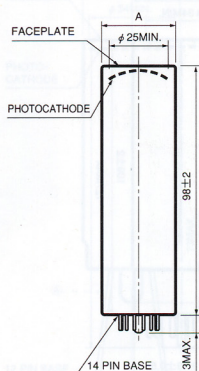
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(at 25°C)

Cathode Sensitivity			Anode to Cathode Supply Voltage (Vdc)	Anode Characteristics								Notes	Type No.
Blue (5-58) Typ. (μA/lm-b)	Red / White Ratio Typ.	Radiant Typ. (mA/W)		Anode Sensitivity			Current Amplification Typ.	Anode Dark Current (After 30 min.)		Time Response			
				Luminous		Radiant Typ. (A/W)		Typ. (nA)	Max. (nA)	Rise Time Typ. (ns)	Electron Transit Time Typ. (ns)		
				Min. (A/lm)	Typ. (A/lm)								
—	—	9.8 [Ⓐ]	2000 [Ⓒ]	2×10 ² [Ⓐ] (A/W)	—	9.8×10 ² [Ⓐ]	1.0×10 ⁵	0.03	0.05	9	40		R1459
—	—	20 [Ⓑ]	1000 [Ⓒ]	4×10 ³ [Ⓑ] (A/W)	—	1.0×10 ⁴ [Ⓑ]	5.0×10 ⁵	0.3	0.5	12	60		R1460
—	—	20 [Ⓑ]	1000 [Ⓒ]	4×10 ³ [Ⓑ] (A/W)	—	1.0×10 ⁴ [Ⓑ]	5.0×10 ⁵	0.3	1	12	60		R431S
11.0	—	88	1000 [Ⓒ]	50	200	1.8×10 ⁵	2.1×10 ⁶	2	10	12	60	Synthetic silica window type: R292 UV glass window type: R269	R268
6.5	—	60	1250 [Ⓓ]	50	300	3.6×10 ⁵	6.0×10 ⁶	40 [Ⓓ]	100 [Ⓓ]	2.2	26		R2560*
11.0	—	88	1000 [Ⓙ]	10	60	5.5×10 ⁴	6.3×10 ⁵	1	5	12	76	Multialkali photocathode type: R1594	R434
11.0	—	88	1500 [Ⓓ]	50	200	1.8×10 ⁵	2.1×10 ⁶	10	200	2.0	23	UV glass window type: R1398	R1355*
6.0	—	51	2000 [Ⓒ]	200	400	5.0×10 ⁵	1.0×10 ⁷	5	100	9	40		R1282
—	0.2	64	1000 [Ⓒ]	20	80	3.4×10 ⁴	5.3×10 ⁵	3	15	15	60	Synthetic silica window type: R376	R374
—	0.2	60	1000 [Ⓒ]	500	2000	8.4×10 ⁵	1.4×10 ⁷	20 [Ⓙ]	50 [Ⓙ]	15	60		R1104
—	0.25	65	1000 [Ⓒ]	30	180	5.1×10 ⁴	7.8×10 ⁵	5	25	15	60		R5929*
—	0.3	40	1000 [Ⓒ]	20	150	3.0×10 ⁴	7.5×10 ⁵	8	30	15	60	UV glass window type: R712	R2228
—	0.1 [Ⓓ]	1.9	1250 [Ⓒ]	5	10	9.5×10 ²	5.0×10 ⁵	1000 [Ⓙ]	3000 [Ⓙ]	10	50		R316
—	0.14 [Ⓓ]	1.9	1250 [Ⓒ]	5	10	9.5×10 ²	5.0×10 ⁵	2000 [Ⓙ]	5000 [Ⓙ]	10	50		R316-02

(Unit: mm)

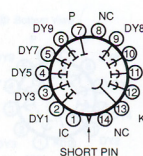
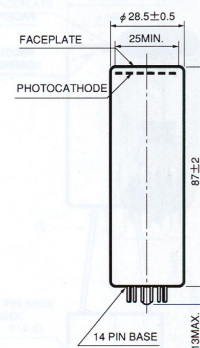
③ R2560, R1355



	R2560	R1355
A	28.5±0.8	28.5±0.5

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④ R434



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