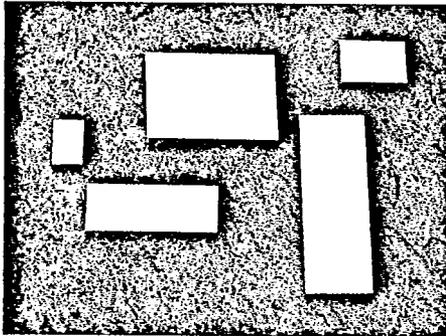
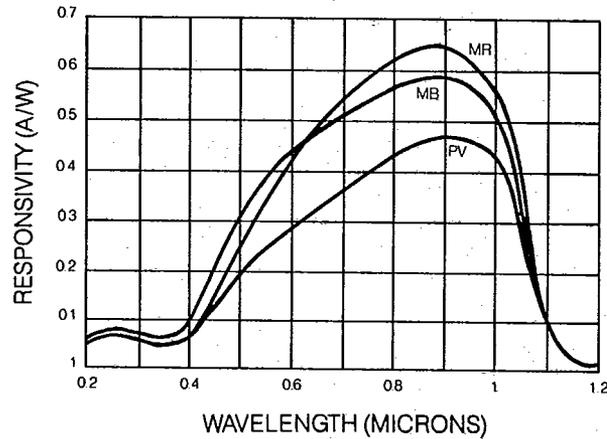


T-41-47

RESPONSIVITY CURVES (TYPICAL)



Standard Solderable Chips

Numerous solderable chips, with and without 6 inch long, 32 gauge insulated leads are offered by Advanced Opto-electronics. Their simple structure offers a cost effective alternative to passivated chips or hermetic packaged devices. It is recommended that these devices be used in photovoltaic mode. Three classes of chips are available: mesa devices with anti-reflection coating for the near-IR or blue-visible spectral ranges, or our lowest cost general purpose chips for less demanding applications. See Packaged Photodiodes and Standard Planar Solderable Chips for more chip selection.

STANDARD SOLDERABLE CHIPS

PRODUCT TYPE NUMBER	MECHANICAL PARAMETERS		TYPICAL OPTICAL PARAMETERS						
	CHIP DIMENSIONS (mm)	PHOTO-SENSITIVE AREA (mm ²)	RESPONSE CURVE TYPE	RESPONSE RANGE (nm)	PEAK WAVELENGTH (nm)	RESPONSIVITY ¹⁾ 254 nm (A/W)	550 nm (A/W)	PEAK (A/W)	Isc ²⁾ (mA)
BLUE AND VISIBLE RESPONSE (MESA)									
58MB	5.0 x 2.2	9	MB	250-1060	900	> .04	0.34	0.52	0.3
58MBL	5.0 x 2.2	9	MB	250-1060	900	> .04	0.34	0.52	0.3
55MB	5.0 x 4.8	21	MB	250-1060	900	> .04	0.34	0.52	0.7
55MBL	5.0 x 4.8	21	MB	250-1060	900	> .04	0.34	0.52	0.7
51MB	5.0 x 9.9	43	MB	250-1060	900	> .04	0.34	0.52	1.4
51MBL	5.0 x 9.9	43	MB	250-1060	900	> .04	0.34	0.52	1.4
52MB	5.0 x 20.0	87	MB	250-1060	900	> .04	0.34	0.52	2.9
52MBL	5.0 x 20.0	87	MB	250-1060	900	> .04	0.34	0.52	2.9
110MB	10.0 x 10.0	93	MB	250-1060	900	> .04	0.34	0.52	3.1
110MBL	10.0 x 10.0	93	MB	250-1060	900	> .04	0.34	0.52	3.1

HIGH SHORT CIRCUIT CURRENT (MESA)

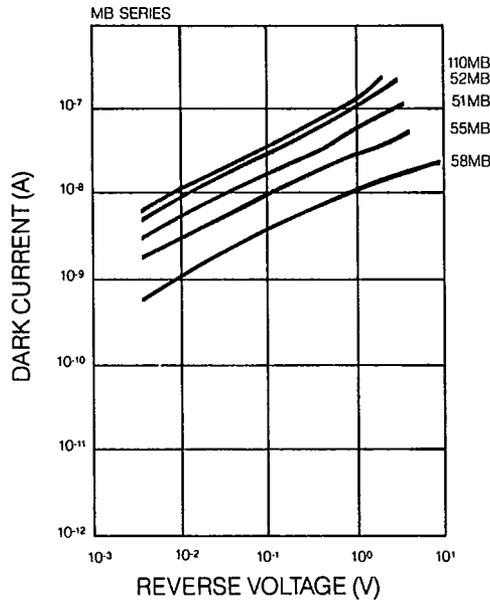
58MR	5.0 x 2.2	9	MR	250-1060	900	> .04	0.25	0.65	3.2
58MRL	5.0 x 2.2	9	MR	250-1060	900	> .04	0.25	0.65	3.2
55MR	5.0 x 4.8	21	MR	250-1060	900	> .04	0.25	0.65	7.4
55MRL	5.0 x 4.8	21	MR	250-1060	900	> .04	0.25	0.65	7.4
51MR	5.0 x 9.9	43	MR	250-1060	900	> .04	0.25	0.65	15.0
51MRL	5.0 x 9.9	43	MR	250-1060	900	> .04	0.25	0.65	15.0
52MR	5.0 x 20.0	87	MR	250-1060	900	> .04	0.25	0.65	30.5
52MRL	5.0 x 20.0	87	MR	250-1060	900	> .04	0.25	0.65	30.5
110MR	10.0 x 10.0	93	MR	250-1060	900	> .04	0.25	0.65	32.6
110MRL	10.0 x 10.0	93	MR	250-1060	900	> .04	0.25	0.65	32.6

LOW COST GENERAL PURPOSE

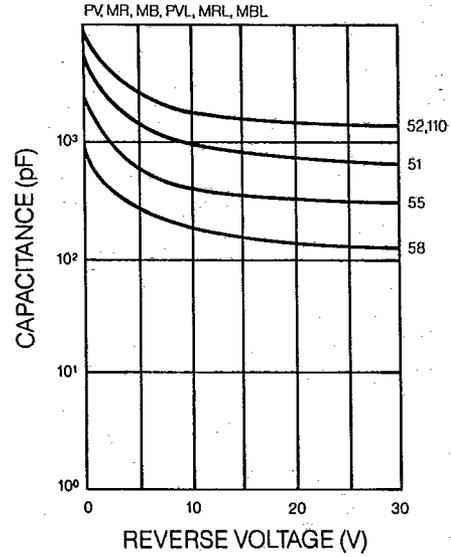
58PV	5.0 x 2.2	9	PV	250-1050	900	> .03	0.24	0.46	0.2
58PVL	5.0 x 2.2	9	PV	250-1050	900	> .03	0.24	0.46	0.2
55PV	5.0 x 4.8	21	PV	250-1050	900	> .03	0.24	0.46	0.5
55PVL	5.0 x 4.8	21	PV	250-1050	900	> .03	0.24	0.46	0.5
51PV	5.0 x 9.9	43	PV	250-1050	900	> .03	0.24	0.46	1.1
51PVL	5.0 x 9.9	43	PV	250-1050	900	> .03	0.24	0.46	1.1
52PV	5.0 x 20.0	87	PV	250-1050	900	> .03	0.24	0.46	2.2
52PVL	5.0 x 20.0	87	PV	250-1050	900	> .03	0.24	0.46	2.2
110PV	10.0 x 10.0	93	PV	250-1050	900	> .03	0.24	0.46	2.3
110PVL	10.0 x 10.0	93	PV	250-1050	900	> .03	0.24	0.46	2.3

1) MINIMUM RESPONSIVITY IS 90% OF TYPICAL RESPONSIVITY. 2) SHORT CIRCUIT CURRENT (Isc) IS MEASURED WITH 10 mW/cm² OF OPTICAL POWER FROM A TUNGSTEN LIGHT SOURCE OPERATED AT 2800 degK TEMPERATURE.

DARK CURRENT vs. VOLTAGE



CAPACITANCE vs. VOLTAGE



CELL ELECTRICAL PARAMETERS

ADDITIONAL PERFORMANCE PARAMETERS

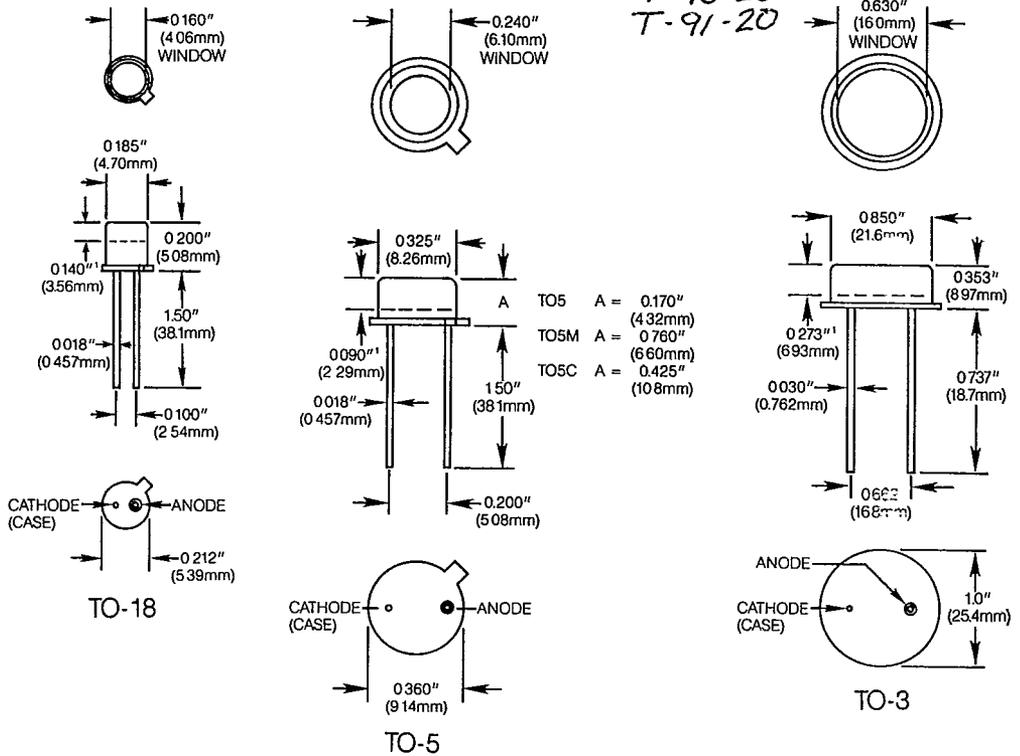
DARK CURRENT $V_R = -0.01V$ MAX. (nA)	BREAKDOWN VOLT. $I_{DR} = 10\mu A$ MIN. (V)	SHUNT RESISTANCE TYP. (Mohm)	TYPICAL CAPACITANCE $V_R = 0V$ (pF)	RISETIME ³⁾ $V_R = 0$ (ns)	NEP TYP. (W/\sqrt{Hz})	D* TYP. ($cm\sqrt{Hz/W}$)
8	12	10	1150	650	4.0E-14	7.5E+12
6	10	5	1150	650	5.7E-14	5.3E+12
20	8	3	2700	750	7.3E-14	6.3E+12
12	7	2	2700	750	8.9E-14	5.1E+12
35	6	2	5500	900	8.9E-14	7.3E+12
30	5	1	5500	900	1.3E-13	5.2E+12
50	4	1	11000	1500	1.3E-13	7.4E+12
50	3	0.5	11000	1500	1.8E-13	5.2E+12
75	3	1	12000	1500	1.3E-13	7.6E+12
60	2	0.5	12000	1500	1.8E-13	5.4E+12
8	12	5	1150	650	5.7E-14	5.3E+12
16	11	2	1150	650	8.9E-14	3.4E+12
18	8	3	2700	750	7.3E-14	6.3E+12
36	7	1	2700	750	1.3E-13	3.6E+12
35	6	2	5500	900	2.8E-13	2.3E+12
70	5	1	5500	900	2.3E-13	2.8E+12
50	4	1	11000	1500	1.3E-13	7.4E+12
100	3	0.5	11000	1500	4.7E-14	2.0E+12
75	3	0.5	12000	1500	1.8E-13	5.4E+12
150	2	0.2	12000	1500	2.8E-13	3.4E+12
6	12	2	1150	650	8.9E-14	3.4E+12
10	10	1	1150	650	1.3E-13	2.4E+12
12	8	1	2700	750	1.3E-13	3.6E+12
15	7	1	2700	750	1.3E-13	3.6E+12
30	7	0.3	5500	900	2.3E-13	2.8E+12
40	6	0.2	5500	900	2.8E-13	2.3E+12
50	5	7.2	11000	1500	4.7E-14	2.0E+12
60	4	0.2	11000	1500	2.8E-13	3.3E+12
60	4	0.2	12000	1500	2.8E-13	3.4E+12
70	3	0.2	12000	1500	2.8E-13	3.4E+12

3) 50 OHM LOAD, $\lambda = 800$ nm
4) OR AT 1/2 BREAKDOWN VOLTAGE, WHICHEVER IS LESS

T-90-20
T-91-20

Package Outlines

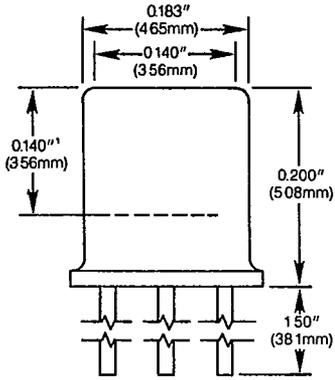
Advanced Optoelectronics offers a complete line of industry-standard TO-packages, as well as other package types. If your design requirements call for a package type beyond those in the catalog, Advanced Optoelectronics can accommodate your needs. Just give us a call.



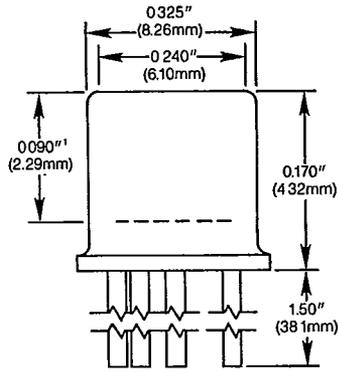
Warranty Information

All product specifications herein may be modified at any time by Advanced Optoelectronics. All Advanced Optoelectronics standard products are fully warranted for a period of one year from date of shipment against defects in material and workmanship. Uncapped detectors are warranted to be free of defects in materials or workmanship for a period of 60 days. Damage caused by mishandling is excepted. Warranty claims for visual and mechanical failures must be requested within 45 days of receipt of product. No claims will be processed without prior authorization.

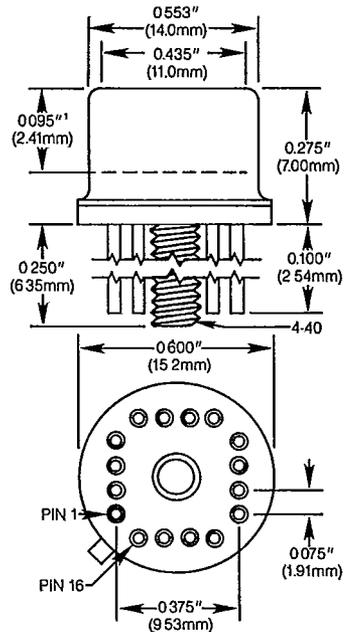
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T-91-20



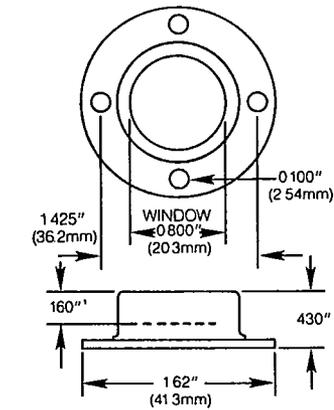
TO-18/3



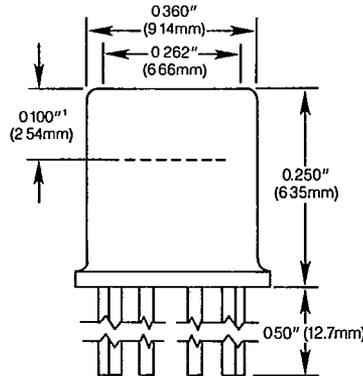
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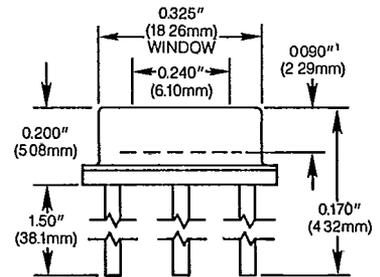
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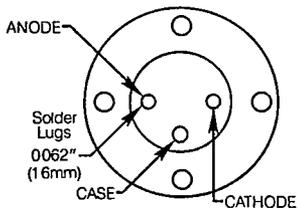
TO-3/3



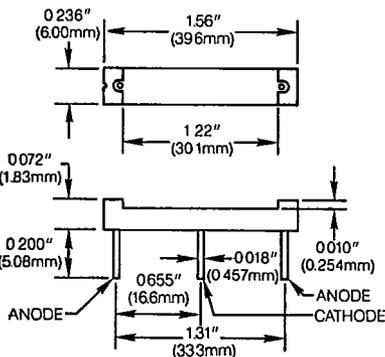
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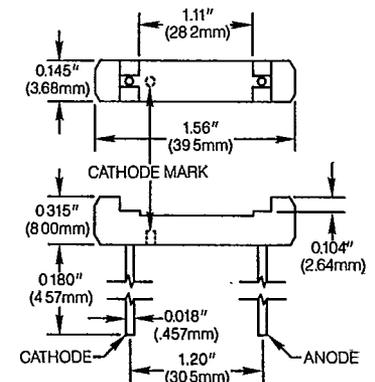
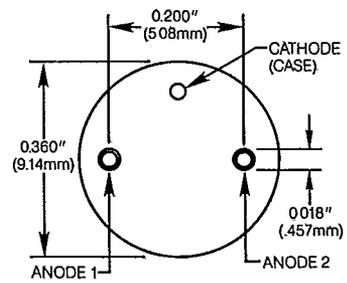
TO-5/3 (Modified)



C-1

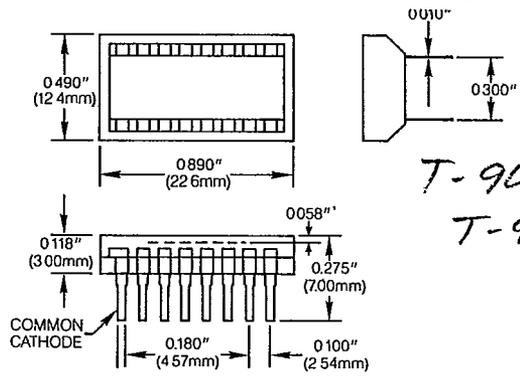


C-2

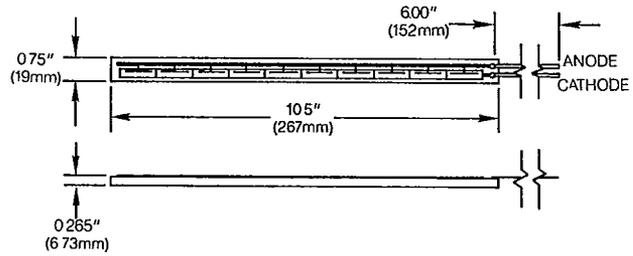


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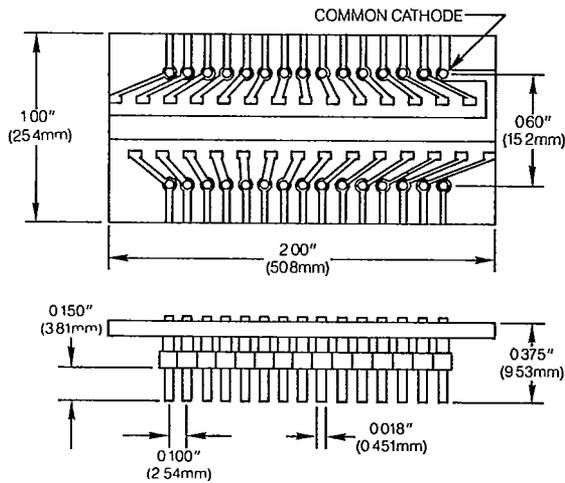
Advanced Optoelectronics is committed to product excellence and growth. A myriad of new products are in development. Our product expansion will reach beyond photo-sensor technology, giving you a broad range of choices for all of your optoelectronics requirements. During 1990, Advanced Optoelectronics will be introducing a family of diode-pumped solid state lasers and semiconductor laser arrays.



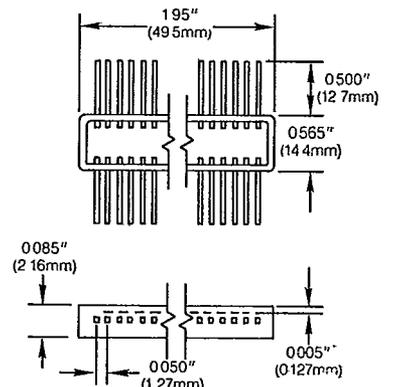
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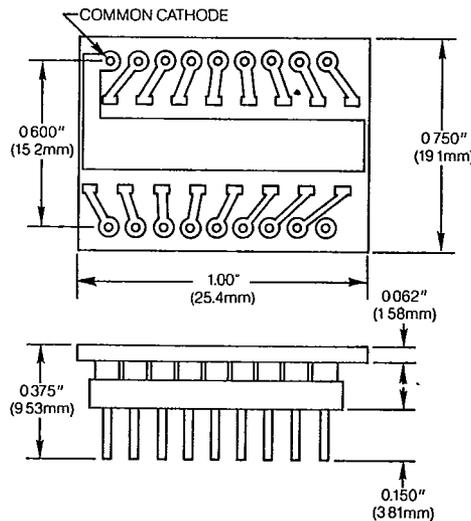
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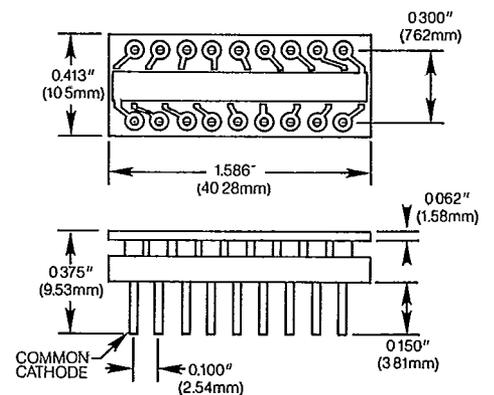
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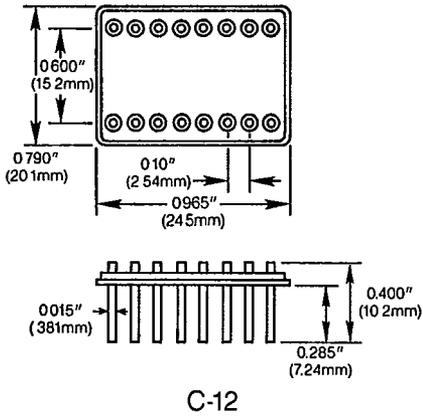
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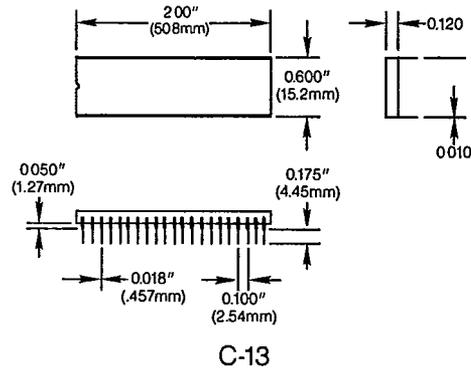
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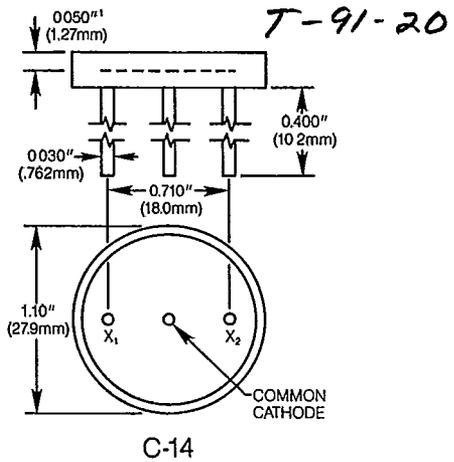
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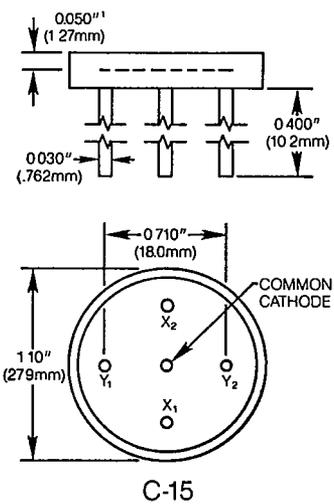
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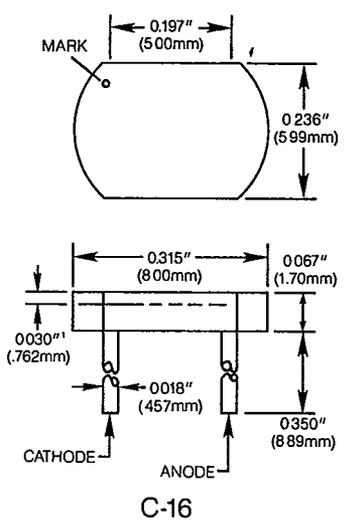
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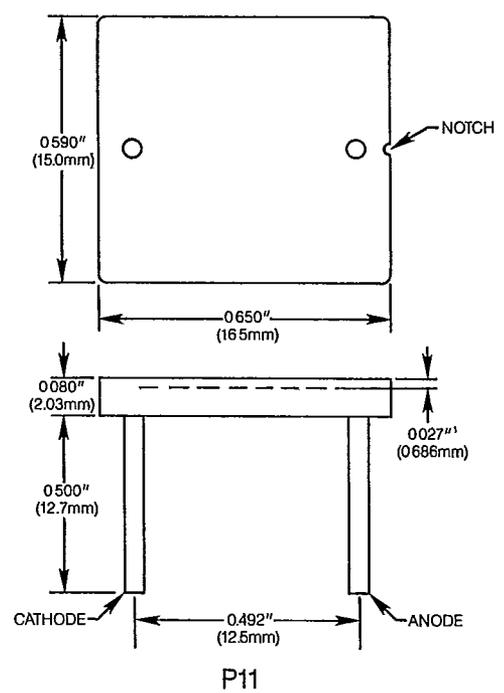
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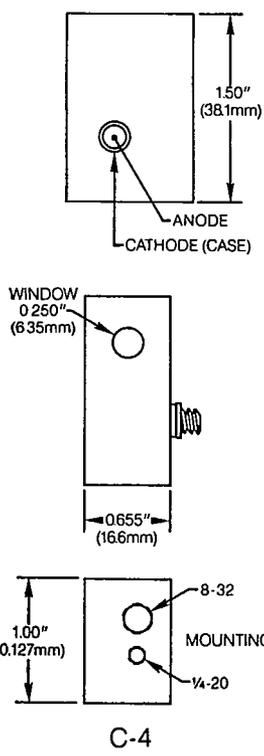
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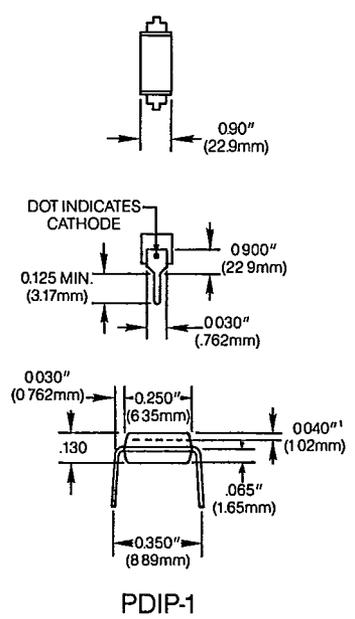
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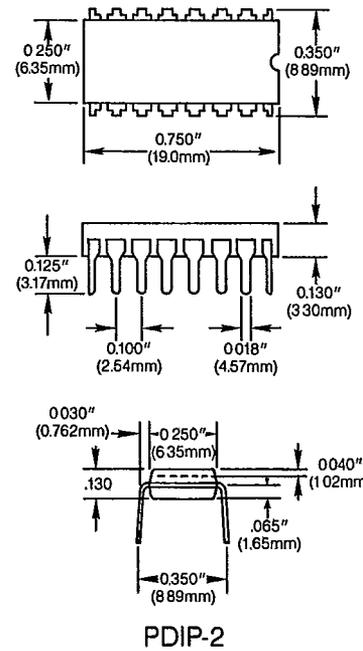
P11



C-4



PDIP-1



PDIP-2