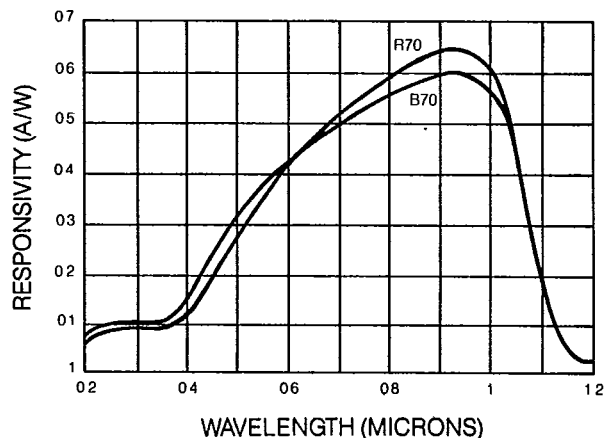


Standard Planar Solderable Chips

Numerous planar solderable chips, with and without 6" long 32 gauge insulated leads are offered by Advanced Optoelectronics. Their passivated structure offers a good performance, cost effective alternative to packaged devices. Anti-reflection coating for improved performance in the blue-visible for near-IR wavelength regions is standard. These planar chips also have good performance when the improved speed of response, linearity, or lower capacitance is required by using a small reverse bias voltage.

Note: Each passivated planar chip used in our packaged products is also available in chip form. See Packaged Photodiodes and Standard Solderable Chips for more chip selection.

RESPONSIVITY CURVES (TYPICAL)

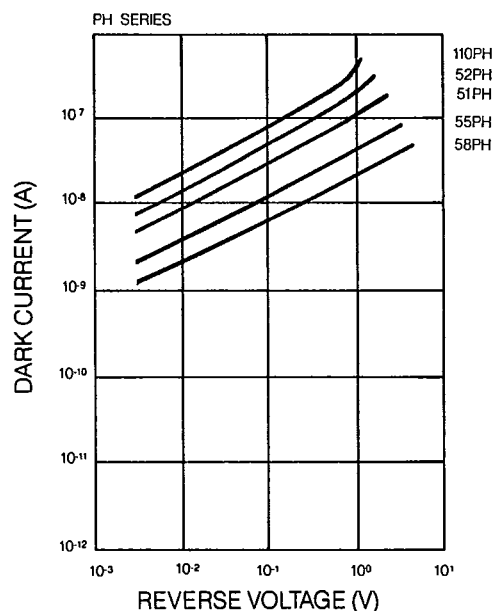


STANDARD PLANAR SOLDERABLE CHIPS

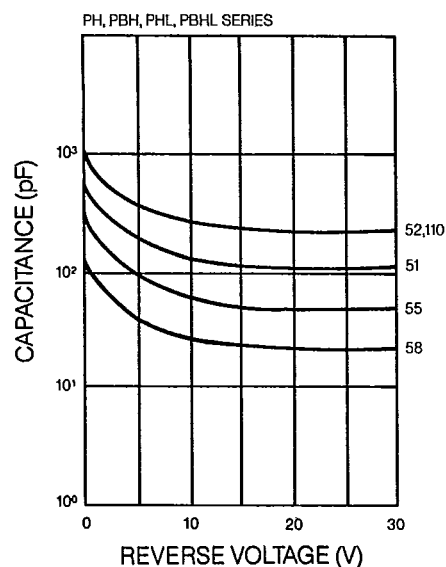
PRODUCT TYPE NUMBER	MECHANICAL PARAMETERS		TYPICAL OPTICAL PARAMETERS						
	CHIP DIMENSIONS (mm)	PHOTO- SENSITIVE AREA (mm ²)	RESPONSE CURVE TYPE	RESPONSE RANGE (nm)	PEAK WAVE- LENGTH (nm)	RESPONSIVITY ¹⁾ 254 nm (A/W)	550 nm (A/W)	PEAK (A/W)	Isc ²⁾ (mA)
BLUE AND VISIBLE RESPONSE									
58PBH	5.0 x 2.2	9	B70	200-1100	950	> .06	0.37	0.59	0.3
58PBHL	5.0 x 2.2	9	B70	200-1100	950	> .06	0.37	0.59	0.3
55PBH	5.0 x 4.8	21	B70	200-1100	950	> .06	0.37	0.59	0.7
55PBHL	5.0 x 4.8	21	B70	200-1100	950	> .06	0.37	0.59	0.7
51PBH	5.0 x 9.9	43	B70	200-1100	950	> .06	0.37	0.59	1.4
51PBHL	5.0 x 9.9	43	B70	200-1100	950	> .06	0.37	0.59	1.4
52PBH	5.0 x 20.0	87	B70	200-1100	950	> .06	0.37	0.59	2.8
52PBHL	5.0 x 20.0	87	B70	200-1100	950	> .06	0.37	0.59	2.8
110PBH	10.0 x 10.0	93	B70	200-1100	950	> .06	0.37	0.59	3.0
110PBHL	10.0 x 10.0	93	B70	200-1100	950	> .06	0.37	0.59	3.0
NEAR IR RESPONSE									
58PH	5.0 x 2.2	9	R70	200-1100	950	> .05	0.34	0.63	0.3
58PHL	5.0 x 2.2	9	R70	200-1100	950	> .05	0.34	0.63	0.3
55PH	5.0 x 4.8	21	R70	200-1100	950	> .05	0.34	0.63	0.7
55PHL	5.0 x 4.8	21	R70	200-1100	950	> .05	0.34	0.63	0.7
51PH	5.0 x 9.9	43	R70	200-1100	950	> .05	0.34	0.63	1.4
51PHL	5.0 x 9.9	43	R70	200-1100	950	> .05	0.34	0.63	1.4
52PH	5.0 x 20.0	87	R70	200-1100	950	> .05	0.34	0.63	2.9
52PHL	5.0 x 20.0	87	R70	200-1100	950	> .05	0.34	0.63	2.9
110PH	10.0 x 10.0	93	R70	200-1100	950	> .05	0.34	0.63	3.1
110PHL	10.0 x 10.0	93	R70	200-1100	950	> .05	0.34	0.63	3.1

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



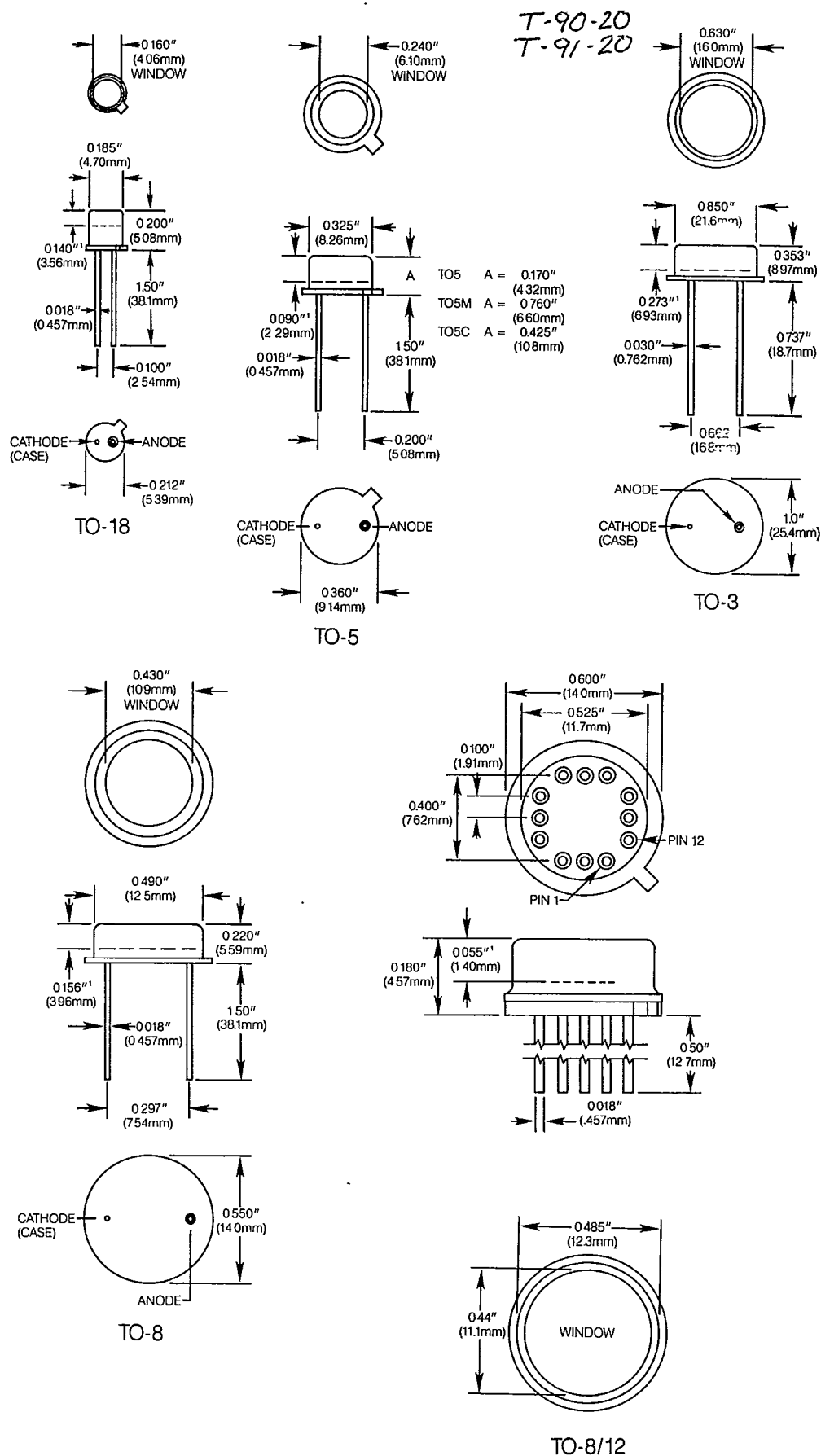
ELECTRICAL PARAMETERS

DARK CURRENT			BREAKDOWN VOLT. $I_{DR} = 10 \mu A$ MIN. (V)	SHUNT RESISTANCE TYP. (Mohm)	TYPICAL CAPACITANCE			ADDITIONAL PERFORMANCE PARAMETERS			
$V_R = -0.01V$ MAX. (nA)	$V_R = -1.0V$ MAX. (nA)	$V_R = -10V^{(4)}$ MAX. (nA)			$V_R = 0V$ (pF)	$V_R = -1V$ (pF)	$V_R = -10V$ (pF)	RISETIME ³⁾		NEP TYP. ($W/\sqrt{Hz}$)	D^* TYP. ($cm\sqrt{Hz}/W$)
								$V_R = 0$ (ns)	$V_R = -10 V^{(4)}$ (ns)		
1	10	20	15	10	200	95	34	450	5	$4.0E-14$	$7.5E+12$
6	60	120	10	5	200	95	34	450	5	$5.7E-14$	$5.3E+12$
3	25	50	10	3	460	221	79	450	10	$7.3E-14$	$6.3E+12$
12	120	250	6	2	460	220	79	450	10	$8.9E-14$	$5.1E+12$
5	50	100	8	2	940	450	160	500	20	$8.9E-14$	$7.3E+12$
30	300	600	5	1	940	450	160	500	20	$1.3E-13$	$5.2E+12$
9	90	200	6	1	1900	920	330	525	40	$1.3E-13$	$7.4E+12$
50	500	1000	3	0.5	1900	920	330	525	40	$1.8E-13$	$5.2E+12$
10	100	200	5	1	2040	980	350	500	45	$1.3E-13$	$7.6E+12$
60	600	1200	2	0.5	2040	980	350	500	45	$1.8E-13$	$5.4E+12$
2	15	30	12	5	197	95	34	450	5	$5.7E-14$	$5.3E+12$
6	60	120	12	2	197	95	34	450	5	$8.9E-14$	$3.4E+12$
3	30	60	8	3	460	220	79	450	10	$7.3E-14$	$6.3E+12$
12	120	250	8	1	460	220	79	450	10	$1.3E-13$	$3.6E+12$
7	75	150	6	0.4	940	450	161	500	20	$2.8E-13$	$2.3E+12$
30	300	600	6	0.3	940	450	161	500	20	$2.3E-13$	$2.8E+12$
12	125	250	4	1	1900	920	325	525	40	$1.3E-13$	$7.4E+12$
50	500	1000	4	0.2	1900	920	325	525	40	$4.7E-14$	$2.0E+13$
20	200	400	3	0.5	2040	980	348	500	45	$1.8E-13$	$5.4E+12$
60	600	1200	3	0.2	2040	980	348	500	45	$2.8E-13$	$3.4E+12$

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

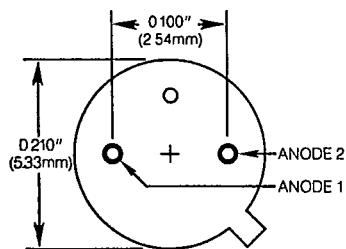
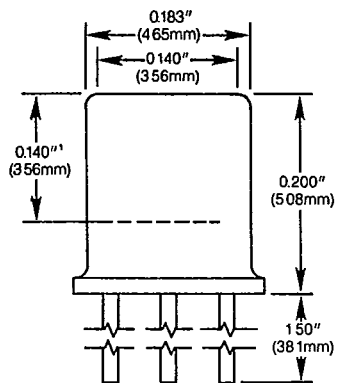
Package Outlines

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.

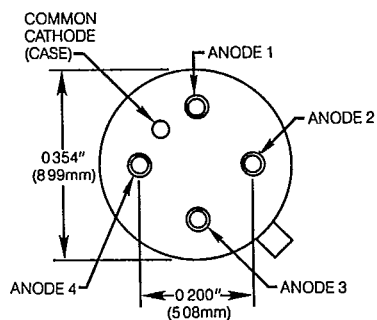
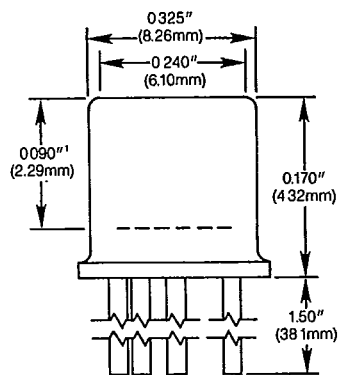


Warranty Information

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.

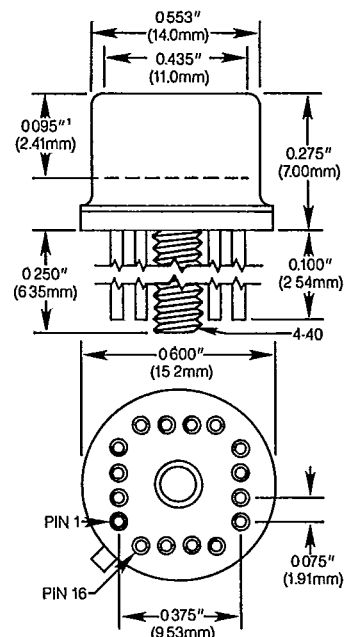


TO-18/3

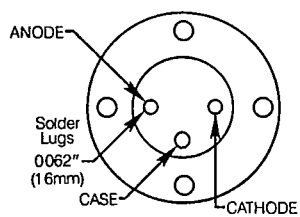
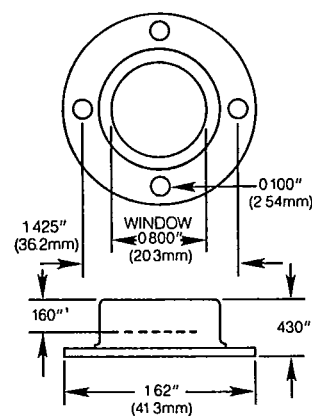


TO-5/5

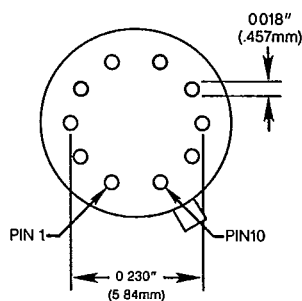
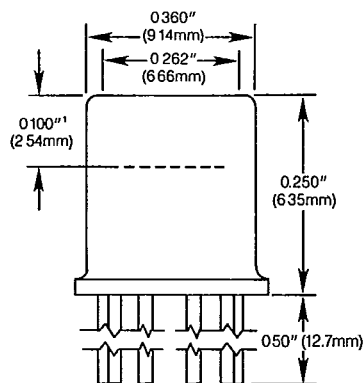
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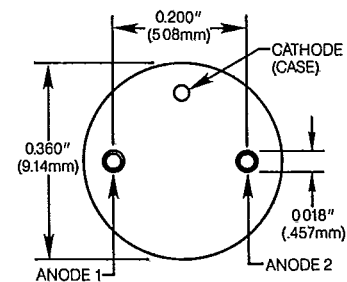
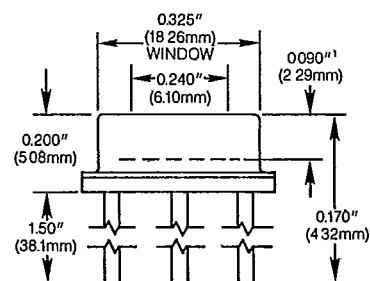
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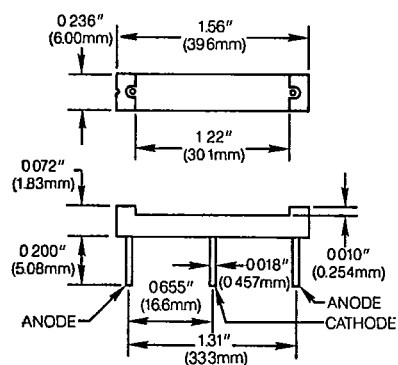
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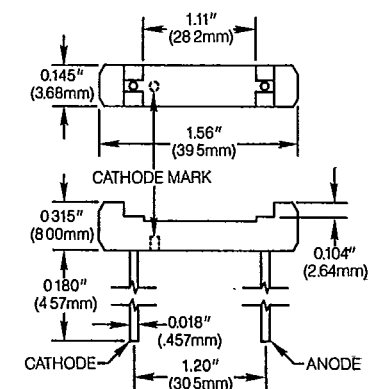
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TO-5/3 (Modified)



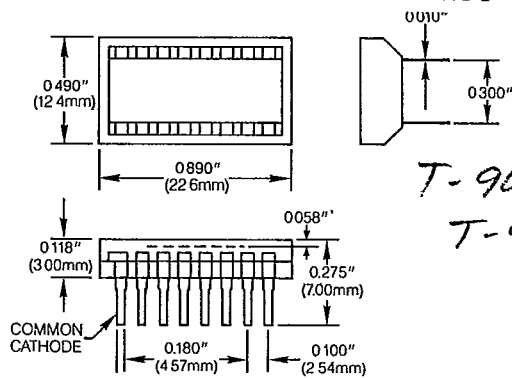
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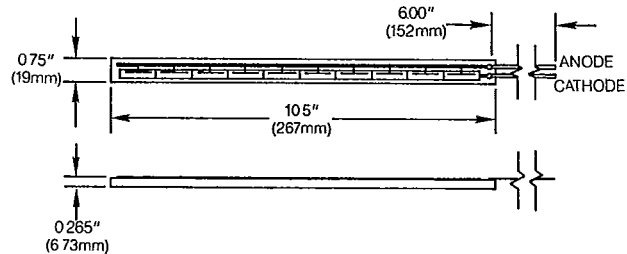
C-2

Advanced Optoelectronics... The Future

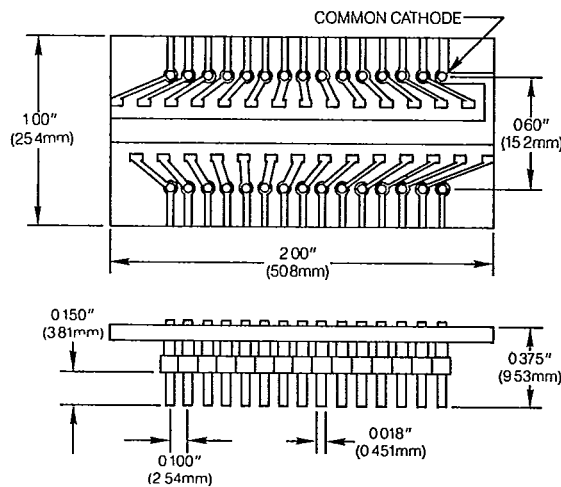
Advanced Optoelectronics is committed to product excellence and growth. A myriad of new products are in development. Our product expansion will reach beyond photo-sensor technology, giving you a broad range of choices for all of your optoelectronics requirements. During 1990, Advanced Optoelectronics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



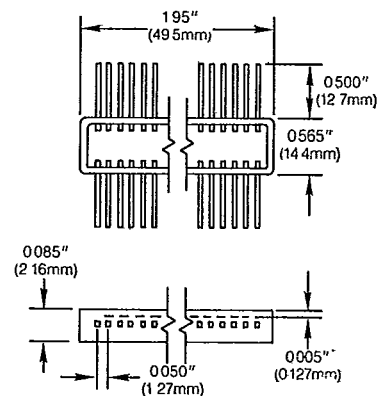
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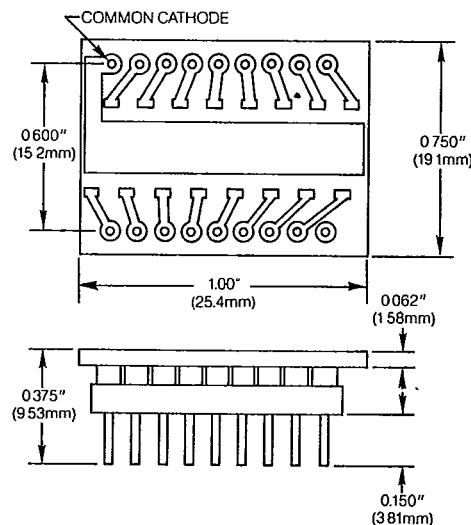
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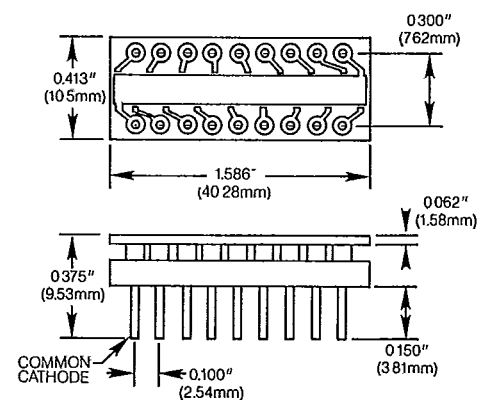
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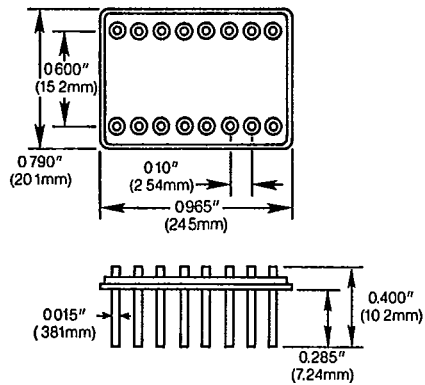
C-5



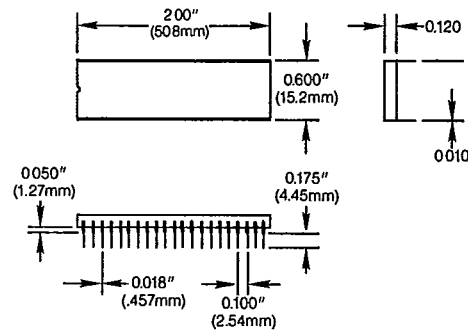
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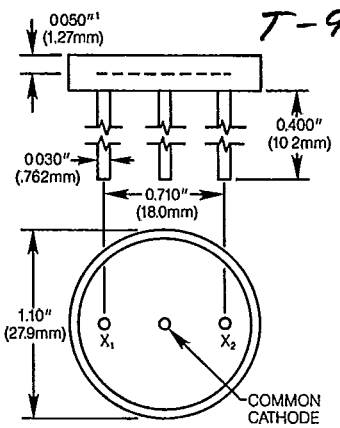
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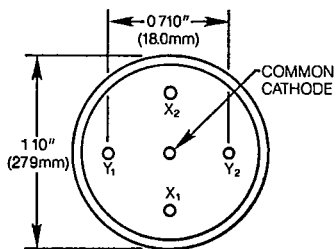
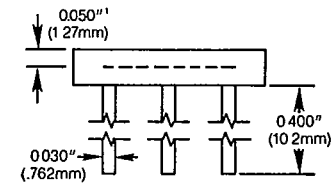
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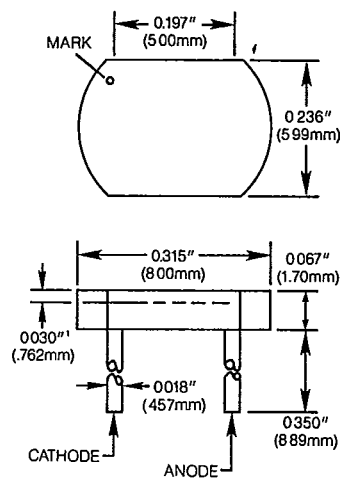
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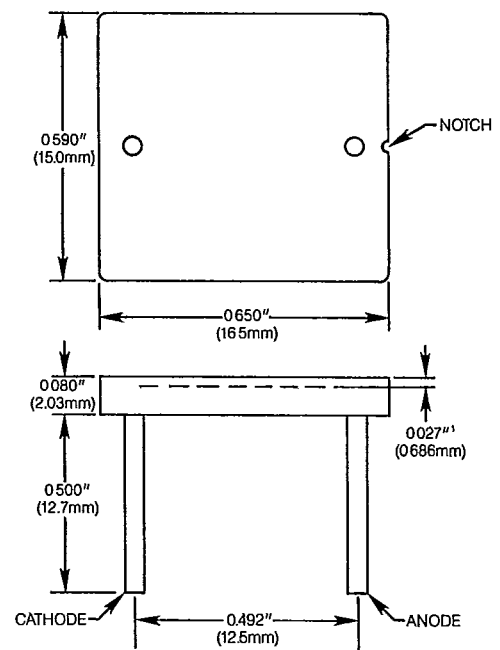
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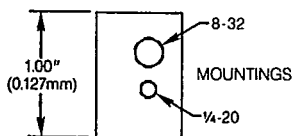
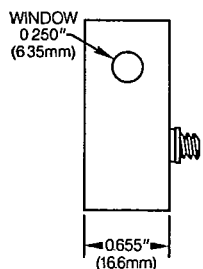
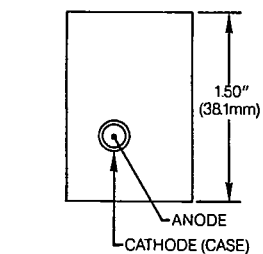
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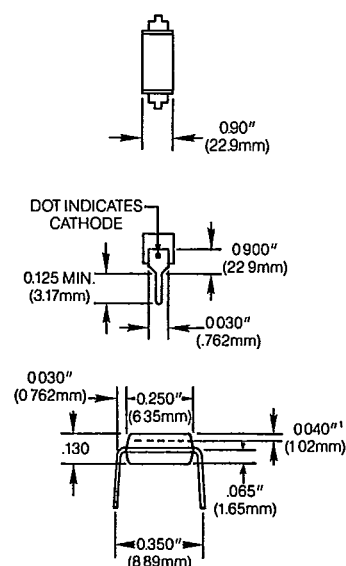
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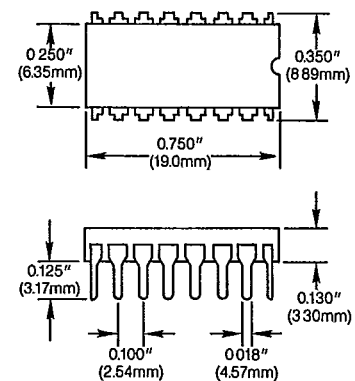
P11



C-4



PDIP-1



PDIP-2