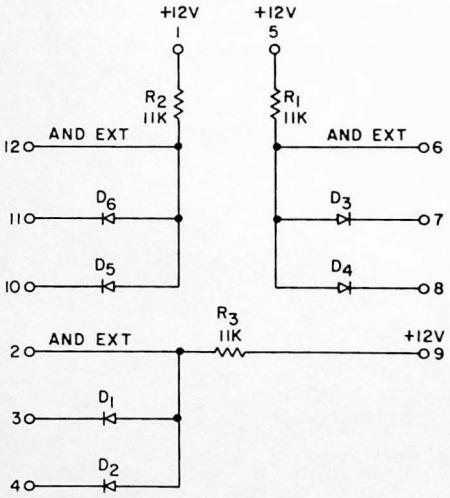
IBM INDUSTRIAL PRODUCTS

AND OR EXTENDER (AOX-1C) MODULE P/N 841589

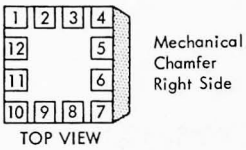
Functional Description

The AND OR Extender, AOX-1C, is used to extend the AND fan-in of either the AOI-1C, AOI-2C or DAOI-2C modules; the resistors R_1 R_2 and R_3 are not incorporated in this application. The AOX-1C can also be used to extend the OR fan-in of the AOI-2C or DAOI-2C modules.

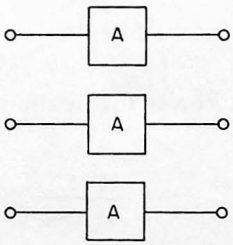
Schematic



Terminal Configuration



Block Diagram



Maximum Ratings

Diode Breakdown Voltage = 13V
Maximum Diode Current = 5 Milliamps

AOX-1C Module Functional Tests

INDIVIDUAL DEVICE PARAMETER TESTS						
TESTS	COM-PONENTS	TEST CONDITIONS	T °C	LIMITS MIN	LIMITS MAX	UNITS
V_F	$D_1 - D_6$	$I_F = 0.10ma$	25	0.51		V
V_F	$D_1 - D_6$	$I_F = 1.0ma$	25		0.80	V
V_F	$D_1 - D_6$	$I_F = 5.0ma$	25		1.0	V
BV_R	$D_1 - D_6$	$I_R = 0.01ma$	25	13		V
I_R	$D_1 - D_6$	$V_R = 12V$	75		1.0	a
DIODE CAPACITANCE	$D_1 - D_6$	OV BIAS f = 1.0 ±0.5mhz AC SIGNAL ≤ 50mv P-P	25		3.5	pf
END OF LIFE RESISTOR TOLERANCE	R_1, R_2, R_3		25 / 75	-8.0	+8.0	%

Circuit Characteristics

Input requirements are the same as the input requirements of the AOI-2C module

Maximum Power Supply Current Requirements

	ON	OFF
+12V	3.3ma	3.6ma

Maximum Power Dissipation

ON	OFF
42.0mw	46.5mw

Average Normal Power Dissipation $= \frac{\text{NOMINAL ON + NOMINAL OFF}}{2} = 33.0mw$