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AND OR EXTENDER (AOX-1A) MODULE P/N 841555

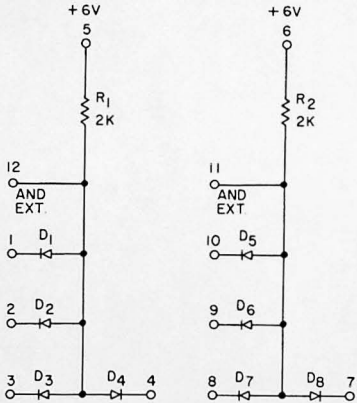
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IBM INDUSTRIAL PRODUCTS

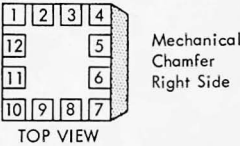
Functional Description

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

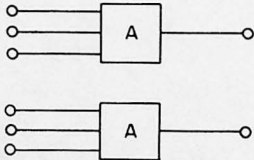
Schematic



Terminal Configuration



Block Diagram



Maximum Ratings

Diode Breakdown Voltage = 13V
 Maximum Diode Current = 5.0 Milliamps

AOX-1A Module Functional Tests

| INDIVIDUAL DEVICE PARAMETER TESTS | | | | | | |
|-----------------------------------|---------------------------------|------------------------|---------|--------|-----|-------|
| TESTS | COM-PONENTS | TEST CONDITIONS | T °C | LIMITS | | UNITS |
| | | | | MIN | MAX | |
| V _F | D ₁ - D ₈ | I _F = 0.1ma | 25 | .51 | | V |
| V _F | D ₁ - D ₈ | I _F = 0.5ma | 25 | .58 | | V |
| V _F | D ₁ - D ₈ | I _F = 1.0ma | 25 | .61 | | V |
| V _F | D ₁ - D ₈ | I _F = 3.0ma | 25 | | .84 | V |
| V _F | D ₁ - D ₈ | I _F = 5.0ma | 25 | | .87 | V |
| BV _R | D ₁ - D ₈ | I _R = 10μa | 25 | 13 | | V |
| I _R | D ₁ - D ₈ | V _R = 12V | 75 | | 0.5 | μa |
| RESISTOR TOLERANCE | R ₁ - R ₂ | | 25 / 75 | -8 | +8 | % |

Circuit Characteristics

Input requirements are the same as AOI-2A module

Maximum Power Supply Current Requirements (per module)

$$+6V \quad \frac{\text{ON}}{4.4ma} \quad \frac{\text{OFF}}{6.0ma}$$

Maximum Power Dissipation

$$\frac{\text{ON}}{22mw} \quad \frac{\text{OFF}}{38mw}$$

$$\text{Average Normal Power Dissipation} = \frac{\text{NOMINAL ON} + \text{NOMINAL OFF}}{2} = 25mw$$