

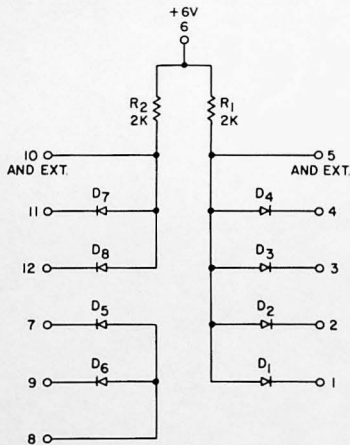
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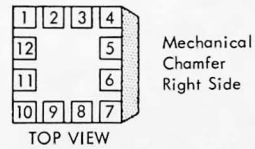
### Functional Description

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

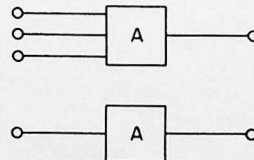
### Schematic



### Terminal Configuration



### Block Diagram



## Maximum Ratings

Diode Breakdown Voltage = 13V

Maximum Diode Current = 5.0 Milliamps

## AOX-2A Module Functional Tests

INDIVIDUAL DEVICE PARAMETER TESTS						
TESTS	COM- PONENTS	TEST CONDITIONS	T °C	LIMITS		UNITS
				MIN	MAX	
$V_F$	$D_1 - D_8$	$I_F = 0.1\text{ma}$	25	.51		V
$V_F$	$D_1 - D_8$	$I_F = 0.5\text{ma}$	25	.58		V
$V_F$	$D_1 - D_8$	$I_F = 1.0\text{ma}$	25	.61		V
$V_F$	$D_1 - D_8$	$I_F = 3.0\text{ma}$	25		.84	V
$V_F$	$D_1 - D_8$	$I_F = 5.0\text{ma}$	25		.87	V
$BV_R$	$D_1 - D_8$	$I_R = 10\mu\text{a}$	25	13		V
$I_R$	$D_1 - D_8$	$V_R = 12\text{V}$	75		0.5	$\mu\text{a}$
RESISTOR TOLERANCE	$R_1 - R_2$		25 75	-8	+8	%

## Circuit Characteristics

Input requirements are the same as the AOI-2A module

## Maximum Power Supply Current Requirements (per module)

+6V	ON	OFF
	4.4ma	6.0ma

## Maximum Power Dissipation

ON	OFF
22mw	38mw

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