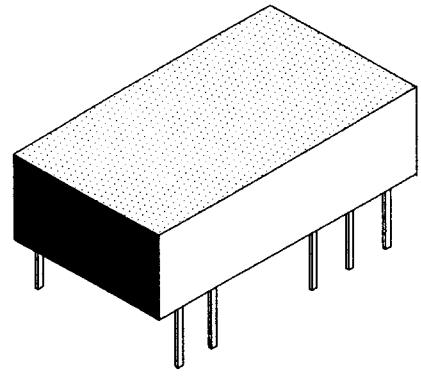
# POLARA

# AXL–SERIES

## 16 PIN, 3 BIT ECL PROGRAMMABLE ACTIVES



DC Electrical Characterstics
($V_{CCI}$=$V_{CC2}$ = GND, $V_{EE}$=5.2V ± 0.01V
Output Loading With 50 Ohms to −2.0V ± 0.01V)

| | Parameter | Test Conditions | Min | Max | Unit |
|---|---|---|---|---|---|
| $V_{OH}$ | High Level Output Voltage | $V_{IL}$=Min | −960 | | mV |
| $V_{OHT}$ | High Level Output Threshold Voltage | | −980 | | mV |
| $V_{OLT}$ | Low Level Output Threshold Voltage | | | −1630 | mV |
| $V_{OL}$ | Low Level Output Voltage | $V_{IH}$=MAX | | −1650 | |
| $I_{IH}$ | High Level Input Current | $V_{IH}$=Max | | 15 | mA |
| $I_{IL}$ | Low Level Input Current | $V_{IL}$=Min | 0.5 | | mA |
| $I_{EE}$ | $V_{EE}$ Supply Current | | | 75 | mA |

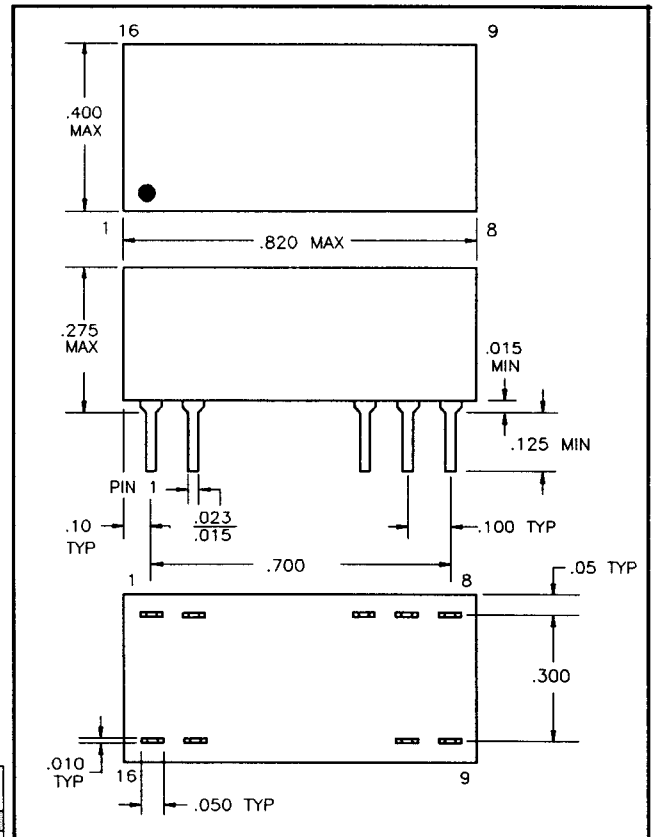
Recommended Operating Conditions

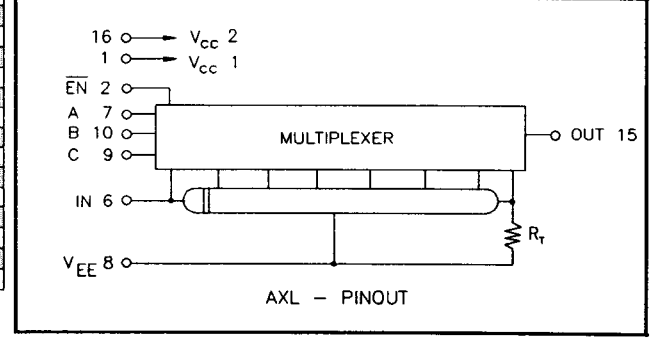
| | Parameter | Min | Max | Unit |
|---|---|---|---|---|
| $V_{EE}$ | Supply Voltage (Negative) | 4.94 | 5.46 | V |
| $V_{CC}$ | Circuit Ground (Pins 1 and 16) | 0 | 0 | V |
| $V_{IH}$ | High Level input Voltage | −980 | −810 | mV |
| $V_{IHT}$ | High Level Input Threshold Voltage | −1105 | | mV |
| $V_{IL}$ | Low Level input Voltage | −1850 | −1630 | mV |
| $V_{ILT}$ | Low Level Input Threshold Voltage | | −1475 | mV |
| $P_W$ | Pulse Width % of Total Delay | 40 | | % |
| $T_A$ | Operating Free-Air Temperature | −30 | +80 | °C |

Input Pulse Test Conditions @ 25°C

| | | |
|---|---|---|
| $V_{IN}$ | Pulse Input Voltage | −1.0V (−0.75 to −1.75V) |
| $P_{IN}$ | Pulse Width | 3 x Max Delay |
| $T_{RI}$ | Pulse Rise Time | 2 nS |
| $P_{RR}$ | Pulse Repetition Rate | 10 x Td |
| $V_{EE}$ | Supply Voltage | −5.2V |

| MIN DELAY (Inherent) | MAX DELAY (Nom) | DELAY/STEP | STEP DELAY TOL. (Ref. Inherent Delay) | POLARA P/N AXL – PINOUT |
|---|---|---|---|---|
| 4.0 ±1 | 11 | 1 ±.5 | ±0.5 nS or ±5% | AXL-0007 |
| 4.0 ±1 | 18 | 2 ±.5 | ±1.0 nS or ±5% | AXL-0014 |
| 4.0 ±1 | 25 | 3 ±.5 | ±1.0 nS or ±5% | AXL-0021 |
| 4.0 ±1 | 32 | 4 ±.5 | ±1.0 nS or ±5% | AXL-0028 |
| 4.0 ±1 | 39 | 5 ±.5 | ±1.0 nS or ±5% | AXL-0035 |
| 4.0 ±1 | 46 | 6 ±.75 | ±2.0 nS or ±5% | AXL-0042 |
| 4.0 ±1 | 53 | 7 ±.75 | ±2.0 nS or ±5% | AXL-0049 |
| 4.0 ±1 | 60 | 8 ±.75 | ±2.0 nS or ±5% | AXL-0056 |
| 4.0 ±1 | 67 | 9 ±.75 | ±2.0 nS or ±5% | AXL-0063 |
| 4.0 ±1 | 74 | 10 ±1.0 | ±2.0 nS or ±5% | AXL-0070 |
| 4.0 ±1 | 109 | 15 ±1.5 | ±2.0 nS or ±5% | AXL-0105 |
| 4.0 ±1 | 144 | 20 ±2.0 | ±2.0 nS or ±5% | AXL-0140 |
| 4.0 ±1 | 179 | 25 ±2.0 | ±2.0 nS or ±5% | AXL-0175 |
| 4.0 ±1 | 214 | 30 ±2.0 | ±2.0 nS or ±5% | AXL-0210 |
| 4.0 ±1 | 249 | 35 ±2.0 | ±2.0 nS or ±5% | AXL-0245 |
| 4.0 ±1 | 284 | 40 ±2.5 | ±2.0 nS or ±5% | AXL-0280 |
| 4.0 ±1 | 319 | 45 ±2.5 | ±2.0 nS or ±5% | AXL-0315 |
| 4.0 ±1 | 354 | 50 ±2.5 | ±2.0 nS or ±5% | AXL-0350 |

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