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[^0]
## FSA3157B

## Low－Voltage SPDT Analog Switch or 2：1 Multiplexer／De－multiplexer Bus Switch

## Features

－Useful in Both Analog and Digital Applications
－Ultra－Small，MicroPak ${ }^{\text {TM }}$ Leadless Package
－Low On Resistance：＜10 $\Omega$ Typical at $3.3 \vee V_{c c}$
－Broad Vcc Operating Range： 1.65 V to 5.5 V
－Rail－to－Rail Signal Handling
－Power－Down，High－Impedance Control Input
－Over－Voltage Tolerance of Control Input to 7.0 V
－Break－Before－Make Enable Circuitry
－ $250 \mathrm{MHz}, 3 \mathrm{~dB}$ Bandwidth

## Description

The FSA3157B is a high－performance，Single－Pole／ Double－Throw（SPDT）analog switch or 2：1 multiplexer／ de－multiplexer bus switch．
The device is fabricated with advanced sub－micron CMOS technology to achieve high－speed enable and disable times and low on resistance．The break－before－ make select circuitry prevents disruption of signals on the B Port due to both switches temporarily being enabled during select pin switching．The device is specified to operate over the 1.65 to $5.5 \mathrm{~V} \mathrm{~V}_{\mathrm{cc}}$ operating range．The control input tolerates voltages up to 5.5 V ， independent of the $\mathrm{V}_{\mathrm{cc}}$ operating range．

## Ordering Information

| Part Number | Operating <br> Temperature <br> Range | Top <br> Mark | Package | Packing <br> Method |
| :--- | :---: | :---: | :---: | :---: |
| FSA3157BL6X | -40 to $+85^{\circ} \mathrm{C}$ | 7 G | 6 －Lead，MicroPak ${ }^{\text {™ }} 1.0 \mathrm{~mm}$ Wide Package | 5000 Units on <br> Tape and Reel |
| FSA3157BFHX | -40 to $+85^{\circ} \mathrm{C}$ | 7 G | 6－Lead，MicroPak2 $^{\mathrm{TM}}, 1 \times 1 \mathrm{~mm}$ Body， .35 mm Pitch | 5000 Units on <br> Tape and Reel |

## Analog Symbols



Figure 1. Logic Symbol


Figure 2. Analog Symbol

## Pin Configuration



Figure 3. Pad Assignments

Function Table

| Input (S) | Function |
| :---: | :---: |
| Logic Level LOW | $\mathrm{B}_{0}$ Connected to A |
| Logic Level HIGH | $\mathrm{B}_{1}$ Connected to A |

## Pin Descriptions

| Pin\# | Name | Description |
| :---: | :---: | :---: |
| 1 | $\mathrm{~B}_{1}$ | Data Ports |
| 2 | GND | Ground |
| 3 | $\mathrm{~B}_{0}$ | Data Ports |
| 4 | A | Data Ports |
| 5 | $\mathrm{~V}_{\mathrm{cc}}$ | Power Supply |
| 6 | S | Control Input |

## Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only.

| Symbol | Parameter |  | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{V}_{\text {cc }}$ | Supply Voltage |  | -0.5 | 7.0 | V |
| $\mathrm{V}_{\mathrm{s}}$ | DC Switch Voltage ${ }^{(1)}$ |  | -0.5 | $\mathrm{V}_{\mathrm{cc}}+0.5$ | V |
| $\mathrm{V}_{\text {IN }}$ | DC Input Voltage ${ }^{(1)}$ |  | -0.5 | 7.0 | V |
| $\mathrm{I}_{\text {K }}$ | DC Input Diode Current at $\mathrm{V}_{\text {IN }}<0 \mathrm{~V}$ |  | -50 |  | mA |
| lout | DC Output Current |  |  | 128 | mA |
| $\mathrm{I}_{\text {CCIIGND }}$ | DC V ${ }_{\text {cc }}$ or Ground Current |  |  | $\pm 100$ | mA |
| TSTG | Storage Temperature Range |  | -65 | +150 | ${ }^{\circ} \mathrm{C}$ |
| TJ | Junction Temperature Under Bias |  |  | +150 | ${ }^{\circ} \mathrm{C}$ |
| TL | Junction Lead Temperature (Soldering, 10 seconds) |  |  | +260 | ${ }^{\circ} \mathrm{C}$ |
| PD | Power Dissipation at $+85^{\circ} \mathrm{C}$ |  |  | 180 | mW |
| ESD | Electrostatic Discharge Capability | Human Body Model, JESD22-A114 |  | 5 | kV |

## Note:

1. Input and output negative voltage ratings may be exceeded if input and output diode current ratings are observed.

## Recommended Operating Conditions

The Recommended Operating Conditions table defines the conditions for actual device operation. Recommended operating conditions are specified to ensure optimal performance to the datasheet specifications. Fairchild does not recommend exceeding them or designing to Absolute Maximum Ratings.

| Symbol | Parameter |  | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{V}_{\text {cc }}$ | Supply Voltage Operating |  | 1.65 | 5.50 | V |
| $\mathrm{V}_{\text {IN }}$ | Control Input Voltage ${ }^{(2)}$ |  | 0 | $\mathrm{V}_{\mathrm{cc}}$ | V |
| $\mathrm{V}_{\text {IN }}$ | Switch Input Voltage ${ }^{(2)}$ |  | 0 | $\mathrm{V}_{\mathrm{cc}}$ | V |
| Vout | Output Voltage ${ }^{(2)}$ |  | 0 | $\mathrm{V}_{\mathrm{cc}}$ | V |
| $\mathrm{T}_{\text {A }}$ | Operating Temperature |  | -40 | +85 | ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{t}_{\mathrm{r}}, \mathrm{t}_{\mathrm{f}}$ | Input Rise and Fall Time | Control Input $\mathrm{V}_{\mathrm{cc}}=2.3 \mathrm{~V}-3.6 \mathrm{~V}$ | 0 | 10 | ns/V |
|  |  | Control Input $\mathrm{V}_{\mathrm{cc}}=4.5 \mathrm{~V}-5.5 \mathrm{~V}$ | 0 | 5 |  |

## Note:

2. Control input must be held HIGH or LOW; it must not float.

Electrical Characteristics

| Symbol | Parameter | Conditions | $\mathrm{V}_{\mathrm{cc}}(\mathrm{V})$ | $\mathrm{T}_{\mathrm{A}}=+25^{\circ} \mathrm{C}$ |  |  | $\mathrm{T}_{\mathrm{A}}=-40$ to $+85^{\circ} \mathrm{C}$ |  | Units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Min. | Typ. | Max. | Min. | Max. |  |
| $\mathrm{V}_{\text {IH }}$ | High Level Input Voltage |  | 1.65 to 1.95 | $0.75 \mathrm{~V}_{\mathrm{cc}}$ |  |  | $0.75 \mathrm{~V}_{\mathrm{cc}}$ |  | V |
|  |  |  | 2.30 to 5.50 | 0.7 Vcc |  |  | $0.7 \mathrm{~V}_{\mathrm{cc}}$ |  |  |
| VIL | Low Level Input Voltage |  | 1.65 to 1.95 |  |  | $0.25 \mathrm{~V}_{\mathrm{cc}}$ |  | $0.25 \mathrm{~V}_{\mathrm{cc}}$ | V |
|  |  |  | 2.30 to 5.50 |  |  | $0.3 \mathrm{~V}_{\mathrm{cc}}$ |  | $0.3 \mathrm{~V}_{\mathrm{cc}}$ |  |
| 1 N | Input Leakage Current | $0 \leq \mathrm{V}_{\mathrm{IN}} \leq 5.5 \mathrm{~V}$ | 0 to 5.50 |  | $\pm 0.05$ | $\pm 0.1$ |  | $\pm 1$ | $\mu \mathrm{A}$ |
| Ioff | Off State Leakage Current | $0 \leq \mathrm{A}, \mathrm{B} \leq \mathrm{V}_{\mathrm{cc}}$ | 1.65 to 5.50 |  | $\pm 0.05$ | $\pm 0.10$ |  | $\pm 1.00$ | $\mu \mathrm{A}$ |
| Ron | Switch On Resistance ${ }^{(3)}$ | $\mathrm{V}_{\text {IN }}=0 \mathrm{~V}, \mathrm{I}_{\mathrm{o}}=30 \mathrm{~mA}$ | 4.50 |  | 3.0 | 7.0 |  | 7.0 | $\Omega$ |
|  |  | $\mathrm{V}_{\text {IN }}=2.4 \mathrm{~V}, \mathrm{I}_{\mathrm{O}}=-30 \mathrm{~mA}$ |  |  | 5.0 | 12.0 |  | 12.0 |  |
|  |  | $\mathrm{V}_{\text {IN }}=4.5 \mathrm{~V}, \mathrm{I}_{\mathrm{O}}=-30 \mathrm{~mA}$ |  |  | 7.0 | 15.0 |  | 15.0 |  |
|  |  | $\mathrm{V}_{\text {IN }}=0 \mathrm{~V}, \mathrm{I}_{\mathrm{o}}=24 \mathrm{~mA}$ | 3.00 |  | 4.0 | 9.0 |  | 9.0 |  |
|  |  | $\mathrm{V}_{\text {IN }}=3 \mathrm{~V}, \mathrm{l}_{\mathrm{o}}=-24 \mathrm{~mA}$ |  |  | 10.0 | 20.0 |  | 20.0 |  |
|  |  | $\mathrm{V}_{1 \mathrm{IN}}=0 \mathrm{~V}, \mathrm{l}_{\mathrm{o}}=8 \mathrm{~mA}$ | 2.30 |  | 5.0 | 12.0 |  | 12.0 |  |
|  |  |  |  |  | 13.0 | 30.0 |  | 30.0 |  |
|  |  | $\mathrm{V}_{1 \mathrm{IN}}=0 \mathrm{~V}, \mathrm{I}_{\mathrm{o}}=4 \mathrm{~mA}$ | 1.65 |  | 6.5 | 20.0 |  | 20.0 |  |
|  |  | $\mathrm{V}_{\text {IN }}=1.65 \mathrm{~V}, \mathrm{I}_{\mathrm{O}}=-4 \mathrm{~mA}$ |  |  | 17.0 | 50.0 |  | 50.0 |  |
| Icc | Quiescent Supply <br> Current: All <br> Channels On or Off | $\begin{aligned} & \mathrm{V}_{\text {IN }}=\mathrm{V}_{\mathrm{CC}} \text { or } \\ & \text { GND }{ }_{\text {lout }} \end{aligned}$ | 5.50 |  |  | 1 |  | 10 | $\mu \mathrm{A}$ |
|  | Analog Signal Range |  | $\mathrm{V}_{\mathrm{cc}}$ | 0 |  | $\mathrm{V}_{\mathrm{cc}}$ | 0 | $\mathrm{V}_{\mathrm{cc}}$ | V |
| $\mathrm{R}_{\text {Range }}$ | On Resistance Over Signal Range ${ }^{(3,7)}$ | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-30 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 4.50 |  |  |  |  | 25 | $\Omega$ |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-24 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 3.00 |  |  |  |  | 50 |  |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-8 \mathrm{~mA}, \\ & 0 \leq \mathrm{VBn} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 2.30 |  |  |  |  | 100 |  |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-4 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 1.65 |  |  |  |  | 300 |  |
| $\Delta \mathrm{R}_{\text {on }}$ | On Resistance Match Between Channels ${ }^{(3,4)}$ | $\mathrm{I}_{\mathrm{A}}=-30 \mathrm{~mA}, \mathrm{~V}_{\mathrm{Bn}}=3.15$ | 4.50 |  | 0.15 |  |  |  | $\Omega$ |
|  |  | $\mathrm{I}_{\mathrm{A}}=-24 \mathrm{~mA}, \mathrm{~V}_{\mathrm{Bn}}=2.1$ | 3.00 |  | 0.20 |  |  |  |  |
|  |  | $\mathrm{I}_{\mathrm{A}}=-8 \mathrm{~mA}, \mathrm{~V}_{\mathrm{Bn}}=1.6$ | 2.30 |  | 0.50 |  |  |  |  |
|  |  | $\mathrm{I}_{\mathrm{A}}=-4 \mathrm{~mA}, \mathrm{~V}_{\mathrm{Bn}}=1.15$ | 1.65 |  | 0.50 |  |  |  |  |
| $\mathrm{R}_{\text {FLAT }}$ | On Resistance Flatness ${ }^{(3,4,6)}$ | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-30 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 5.00 |  | 6 |  |  |  | $\Omega$ |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-24 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 3.00 |  | 12 |  |  |  |  |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-8 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 2.50 |  | 28 |  |  |  |  |
|  |  | $\begin{aligned} & \mathrm{I}_{\mathrm{A}}=-4 \mathrm{~mA}, \\ & 0 \leq \mathrm{V}_{\mathrm{Bn}} \leq \mathrm{V}_{\mathrm{CC}} \end{aligned}$ | 1.80 |  | 125 |  |  |  |  |

## Notes:

3. Measured by the voltage drop between the $A$ and $B$ pins at the indicated current through the switch. On resistance is determined by the lower of the voltages on the two (A or B Ports).
4. Parameter is characterized, but not tested in production.
5. $\Delta R_{\mathrm{ON}}=\mathrm{R}_{\mathrm{ON}}$ maximum $-\mathrm{R}_{\mathrm{ON}}$ minimum measured at identical $\mathrm{V}_{\mathrm{Cc}}$, temperature, and voltage levels.
6. Flatness is defined as the difference between the maximum and minimum value of on resistance over the specified range of conditions.
7. Guaranteed by design.

## AC Electrical Characteristics

| Symbol | Parameter | Conditions | $\mathrm{V}_{\mathrm{cc}}(\mathrm{V})$ | $\mathrm{T}_{\mathrm{A}}=+25^{\circ} \mathrm{C}$ |  |  | $\mathrm{T}_{\mathrm{A}}=-40$ to $+85^{\circ} \mathrm{C}$ |  | Units | Figure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Min. | Typ. | Max. | Min. | Max. |  |  |
| $\mathrm{t}_{\text {PLH }} \mathrm{t}_{\text {PLH }}$ | Propagation Delay Bus-to-Bus ${ }^{(8)}$ | $\mathrm{V}_{\text {IN }}=$ OPEN | 1.65 to 1.95 |  |  | 3.5 |  | 3.5 | ns | Figure 10 <br> Figure 11 |
|  |  |  | 2.30 to 2.70 |  |  | 1.2 |  | 1.2 |  |  |
|  |  |  | 3.00 to 3.60 |  |  | 0.8 |  | 0.8 |  |  |
|  |  |  | 4.05 to 5.50 |  |  | 0.3 |  | 0.3 |  |  |
| $\mathrm{t}_{\text {PLL }}$, tpzH | Output Enable Time Turn-On Time (A to $\mathrm{B}_{\mathrm{n}}$ ) | $\begin{aligned} & V_{\mathbb{I N}}=2 x V_{\text {cc }} \text { for } \\ & t_{\text {PZL }} V_{\mathbb{N}}=0 \vee \\ & \text { for } t_{\text {PZH }} \end{aligned}$ | 1.65 to 1.95 | 7.0 |  | 23.0 |  | 24.0 | ns | Figure 10 <br> Figure 11 |
|  |  |  | 2.30 to 2.70 | 3.5 |  | 13.0 |  | 14.0 |  |  |
|  |  |  | 3.00 to 3.60 | 2.5 |  | 6.9 |  | 7.6 |  |  |
|  |  |  | 4.50 to 5.50 | 1.7 |  | 5.2 |  | 5.7 |  |  |
| $\mathrm{t}_{\text {PLZ }} \mathrm{t}_{\text {PHz }}$ | Output Disable Time Turn-Off Time (A Port to B Port) | $\begin{aligned} & V_{V_{\mathbb{N}}}=2 \times V_{\mathrm{cc}} \text { for } \\ & t_{\text {PLZ }} V_{\mathbb{N}}=0 \mathrm{~V} \\ & \text { for } t_{\text {PHZ1 }} \end{aligned}$ | 1.65 to 1.95 | 3.0 |  | 12.5 |  | 13.0 | ns | Figure 10 <br> Figure 11 |
|  |  |  | 2.30 to 2.70 | 2.0 |  | 7.0 |  | 7.5 |  |  |
|  |  |  | 3.00 to 3.60 | 1.5 |  | 5.0 |  | 5.3 |  |  |
|  |  |  | 4.50 to 5.50 | 0.8 |  | 3.5 |  | 3.8 |  |  |
| $\mathrm{t}_{\text {Bвм }}$ | Break-Before-Make Time ${ }^{(9)}$ |  | 1.65 to 1.95 | 0.5 |  |  | 0.5 |  | ns | Figure 12 |
|  |  |  | 2.30 to 2.70 | 0.5 |  |  | 0.5 |  |  |  |
|  |  |  | 3.00 to 3.60 | 0.5 |  |  | 0.5 |  |  |  |
|  |  |  | 4.50 to 5.50 | 0.5 |  |  | 0.5 |  |  |  |
| Q | Charge Injection ${ }^{(9)}$ | $\begin{aligned} & \mathrm{C}_{\mathrm{L}}=0.1 \mathrm{nF}, \\ & \mathrm{~V}_{\mathrm{GEN}}=0 \mathrm{~V}, \\ & \hline \end{aligned}$ | 5.00 |  | 7 |  |  |  | pC | Figure 13 |
|  |  | $\mathrm{R}_{\mathrm{GEN}}=0 \Omega$ | 3.30 |  | 3 |  |  |  |  |  |
| OIRR | Off Isolation ${ }^{(10)}$ | $\begin{aligned} & \mathrm{R}_{\mathrm{L}}=50 \Omega, \\ & \mathrm{f}=10 \mathrm{MHz} \end{aligned}$ | 1.65 to 5.50 |  | -57 |  |  |  | dB | Figure 14 |
| Xtalk | Crosstalk | $\begin{aligned} & \mathrm{R}_{\mathrm{L}}=50 \Omega, \\ & \mathrm{f}=10 \mathrm{MHz} \end{aligned}$ | 1.65 to 5.50 |  | -54 |  |  |  | dB | Figure 15 |
| BW | -3 dB Bandwidth | $\mathrm{R}_{\mathrm{L}}=50 \Omega$ | 1.65 to 5.50 |  | 250 |  |  |  | MHz | Figure 18 |
| THD | Total Harmonic Distortion ${ }^{(9)}$ | $\begin{aligned} & \mathrm{R}_{\mathrm{L}}=600 \Omega, \\ & 0.5 \mathrm{~V}_{\mathrm{PP}}, \\ & \mathrm{f}=600 \mathrm{~Hz} \text { to } \\ & 20 \mathrm{KHz} \end{aligned}$ | 5.00 |  | . 011 |  |  |  | \% |  |

## Notes:

8. This parameter is guaranteed by design, but not tested. The bus switch contributes no propagation delay other than the RC delay of the on resistance of the switch and the 50 pF load capacitance when driven by an ideal voltage source (zero output impedance).
9. Guaranteed by design.
10. Off Isolation $=20 \log _{10}\left[\mathrm{~V}_{\mathrm{A}} / \mathrm{V}_{\mathrm{Bn}}\right]$.

## Capacitance

$\mathrm{T}_{\mathrm{A}}=+25^{\circ} \mathrm{C}, \mathrm{f}=1 \mathrm{MHz}$. Capacitance is characterized, but not tested in production.

| Symbol | Parameter | Conditions | Typical | Unit | Figure |
| :---: | :--- | :--- | :---: | :---: | :---: |
| $\mathrm{C}_{\mathrm{IN}}$ | Control Pin Input Capacitance | $\mathrm{V}_{\mathrm{CC}}=0 \mathrm{~V}$ | 2.3 | pF |  |
| $\mathrm{C}_{\mathrm{OO}-\mathrm{B}}$ | B Port Off Capacitance | $\mathrm{V}_{\mathrm{CC}}=5.0 \mathrm{~V}$ | 6.5 | pF | Figure 16 |
| $\mathrm{C}_{\mathrm{IOA}-\mathrm{ON}}$ | A Port Capacitance, Switch Enabled | $\mathrm{V}_{\mathrm{CC}}=5.0 \mathrm{~V}$ | 18.5 | pF | Figure 17 |

## Typical Performance Characteristics



Figure 4. Off Isolation, $\mathrm{V}_{\mathrm{cc}}-1.65 \mathrm{~V}$


Figure 6. Crosstalk, $\mathrm{V}_{\mathrm{cc}}=1.65 \mathrm{~V}$


Figure 8. Bandwidth, $\mathrm{V}_{\mathrm{cc}}=1.65 \mathrm{~V}$


Figure 5. Off Isolation, $\mathrm{V}_{\mathrm{cc}}-5.5 \mathrm{~V}$


Figure 7. Crosstalk, $\mathrm{V}_{\mathrm{cc}}=5.5 \mathrm{~V}$


Figure 9. Bandwidth, $\mathrm{V}_{\mathrm{cc}}=5.5 \mathrm{~V}$

## AC Loading and Waveforms



Notes:
Input driven by $50 \Omega$ source terminated in $50 \Omega$
$\mathrm{C}_{\mathrm{L}}$ includes load and stray capacitance
Input PRR $=1.0 \mathrm{MHz} ; \mathrm{t}_{\mathrm{w}}=500 \mathrm{~ns}$

Figure 10. AC Test Circuit


Figure 11. AC Waveforms


Figure 12. Break-Before-Make Interval Timing

## AC Loading and Waveforms (Continued)



Figure 13. Charge Injection Test


Figure 14. Off Isolation


Figure 16. Channel Off Capacitance


Figure 15. Crosstalk

Figure 17. Channel On Capacitance


Figure 18. Bandwidth

## Physical Dimensions



1. CONFORMS TO JEDEC STANDARD MO-252 VARIATION UAAD
2. DIMENSIONS ARE IN MILLIMETERS
3. DRAWING CONFORMS TO ASME Y14.5M-1994
4. FILENAME AND REVISION: MAC06AREV4
5. PIN ONE IDENTIFIER IS $2 X$ LENGTH OF ANY

OTHER LINE IN THE MARK CODE LAYOUT.
Figure 19. 6-Lead, MicroPak ${ }^{\text {TM }} 1.0$ mm Wide Package
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1
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Tape and Reel Specifications
Please visit Fairchild Semiconductor's online pararaging area for the most reqent tape and reel specifications: http://www.fairchildsemi.com/products/logic/pdf/micropak tr.pdf. 1

| Package Designator | Tape Section | Cavity Number | Cavity Staptus | Cover Type Status |
| :---: | :---: | :---: | :---: | :---: |
| L6X | Leader (Start End) | 125 (Typical) | Empty ${ }^{\text {- }}$ | Sealed |
|  | Carrier | 5000 | Filled | Sealed |
|  | Trailer (Hub End) | 75 (Typical) | Empty | Sealed |
| $\frac{1}{7}$ |  |  |  |  |
| © 2007 Fairchild Semiconductor Corporation FSA3157B • Rev. 1.0.5 |  | 9 |  | www.fairchildsen |
|  | - | $\underline{-}$ | 1 | $1^{1}$ |

## Physical Dimensions



Figure 20. 6-Lead, MicroPak2 ${ }^{\text {TM }}$, $1 \times 1 \mathrm{~mm}$ Body, .35 mm Pitch
Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.
Always visit Fairchild Semiconductor's online packaging area for the most recent package drawings.
http://www.fairchildsemi.com/packaging/.

## Tape and Reel Specifications

Please visit Fairchild Semiconductor's online packaging area for the most recent tape and reel specifications: http://www.fairchildsemi.com/packaging/MicroPAK2 6L tr.pdf.

| Package Designator | Tape Section | Cavity Number | Cavity Status | Cover Type Status |
| :---: | :---: | :---: | :---: | :---: |
| FHX | Leader (Start End) | 125 (Typical) | Empty | Sealed |
|  | Carrier | 5000 | Filled | Sealed |
|  | Trailer (Hub End) | 75 (Typical) | Empty | Sealed |

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| :---: | :---: | :---: | :---: |
| AX-CAP ${ }^{\text {®* }}$ | FRFET ${ }^{\text {® }}$ | © | SYSTEM |
| BitSiC'm | Global Power Resource ${ }^{\text {su }}$ | PowerTrench ${ }^{\text {® }}$ | SGENERAL ${ }^{\text {®rox }}$ |
| Build it Now ${ }^{\text {TM }}$ | GreenBridge ${ }^{\text {™ }}$ | Power $\times S^{\text {TM }}$ | TinyBoost ${ }^{\text {( }}$ |
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| CTL'M | GTOTM | Quiet Series ${ }^{\text {TM }}$ | TINYOPTOTM |
| Current Transfer Logic ${ }^{\text {TM }}$ | IntelliMAX ${ }^{\text {tm }}$ | RapidConfigure ${ }^{\text {™ }}$ | TinyPowertm |
| DEUXPEED ${ }^{\text {® }}$ | ISOPLANAR ${ }^{\text {TM }}$ | $\mathrm{O}^{\text {TM }}$ | TinyPMM ${ }^{\text {TM }}$ |
| Dual $\mathrm{Cool}{ }^{\text {TM }}$ | Making Small Speakers Sound Louder |  | Tiny Wire ${ }^{\text {™ }}$ |
| Ecospark ${ }^{\text {® }}$ | and Better ${ }^{\text {TM }}$ | Saving our morld, 1 mWWNW at a time ${ }^{\text {TM }}$ | TranSiC'm |
| EfficientMax ${ }^{\text {™ }}$ | MegaBuck ${ }^{\text {Tm }}$ | SignalWise ${ }^{\text {TM }}$ | TriFault Detect ${ }^{\text {TM }}$ |
| ESBC'm | MICROCOUPLER ${ }^{\text {TM }}$ | SmartMax ${ }^{\text {™ }}$ | TRUECURRENT ${ }^{\text {®***}}$ |
| ${ }^{(8)}$ | MicroFet ${ }^{\text {tM }}$ | SMART STARTTM | $\mu$ SerDes ${ }^{\text {™ }}$ |
| $7{ }_{\text {Fairchild }}$ | MicroPak ${ }^{\text {TM }}$ | Solutions for Your Success ${ }^{\text {TM }}$ | $W$ |
| Fairchild ${ }^{\text {Fairchild Semiconductor }}$ | MicroPak $2^{\text {Tm }}$ | SPM ${ }^{\text {a }}$ | Serdes |
| Fairchild Semiconductor | MillerDrive ${ }^{\text {m }}$ | STEALTH ${ }^{\text {™ }}$ | UHC ${ }^{(6)}$ |
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