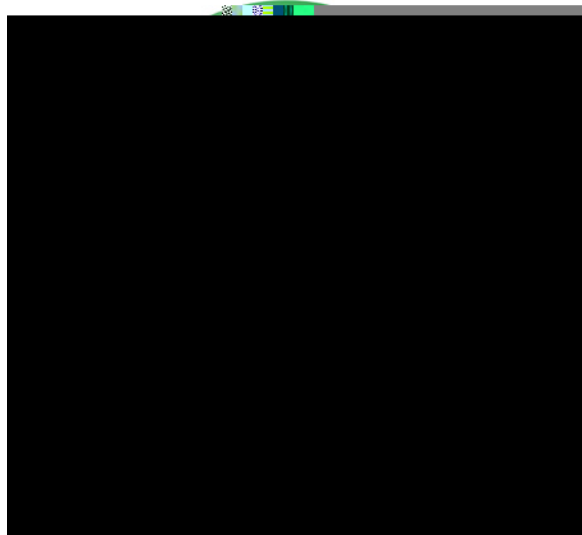




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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (\_), the underscore (\_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (\_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at [www.onsemi.com](http://www.onsemi.com). Please email any questions regarding the system integration to [Fairchild\\_questions@onsemi.com](mailto:Fairchild_questions@onsemi.com).

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14dB Notch at 4.425MHz to 4.6MHz for Sound Trap  
Capable of Handling Stereo

50dB Stopband Attenuation at 27MHz on  
CV Output

> 0.5dB Flatness to 4.2MHz on CV Output

Equalizer and Notch Filter for Driving RF Modulator  
with Group Delay of -180ns

No External Frequency Selection Components  
or Clocks

< 5ns Group Delay on CV Output

AC-Coupled Input

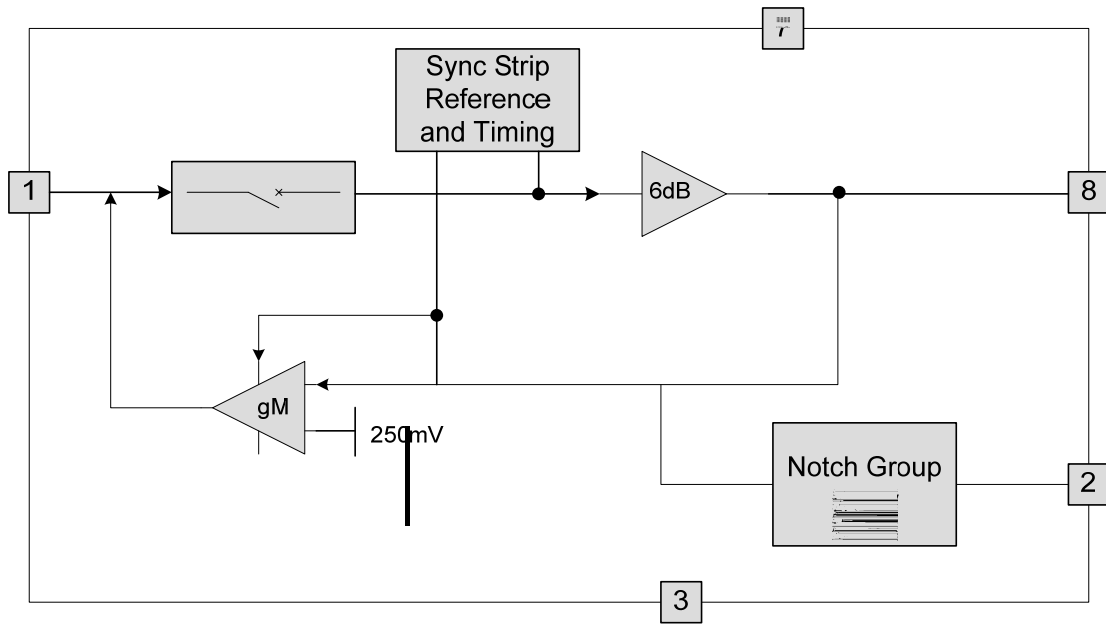
AC- or DC-Coupled Output

Capable of PAL Frequency for CV

Continuous Time Low-Pass Filters

<1.4% Differential Gain with 0.7° Differential Phase

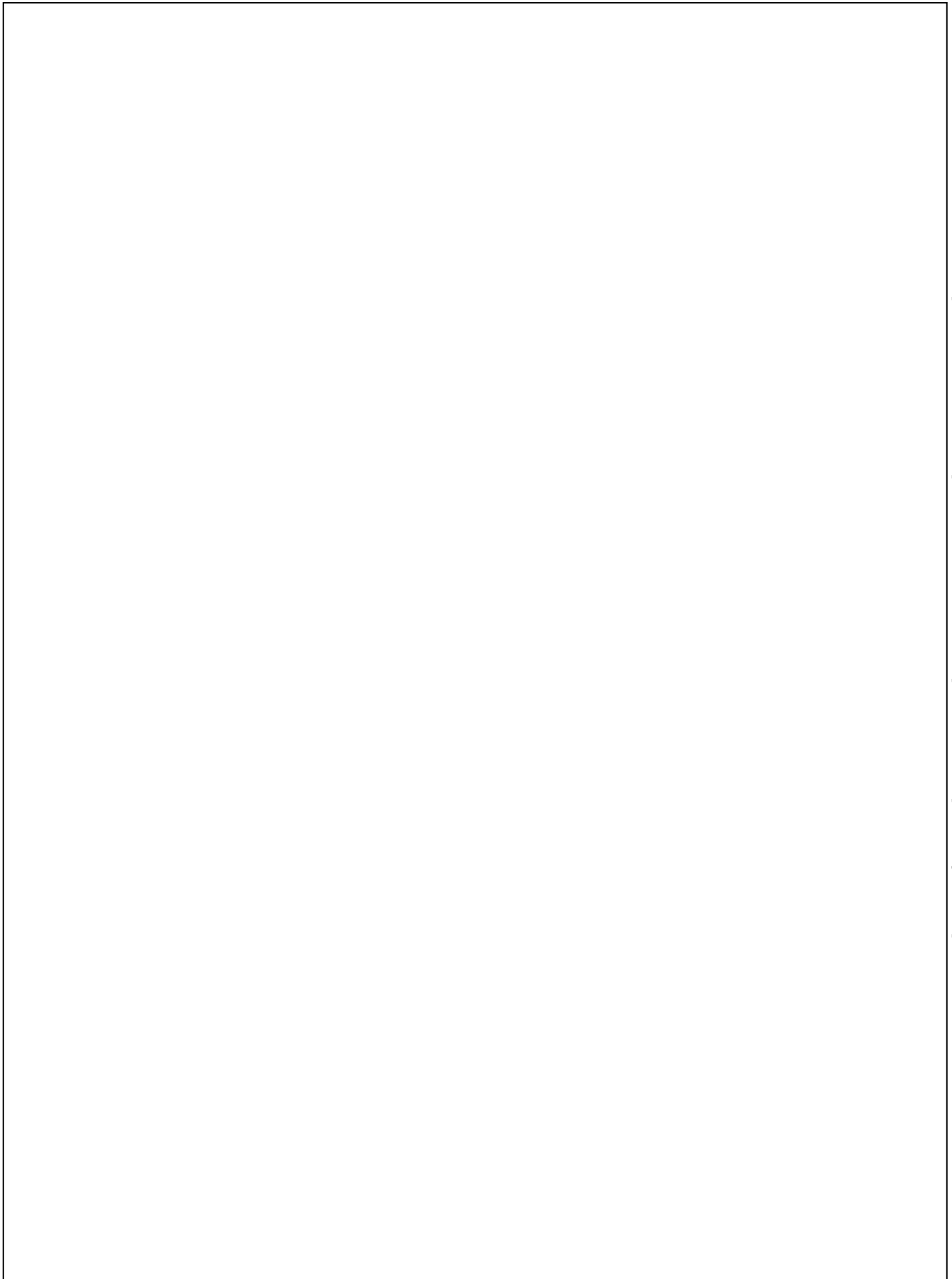
### Block Diagram



## 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



## Typical Performance Characteristics

Unless otherwise noted,  $T_A = 25^\circ\text{C}$ ,  $V_{CC} = 5.0\text{V}$ ,  $R_s = 37.5 \Omega$ , and AC-coupled output into  $150 \Omega$  load,  $C_{V_{OUT}}$ .

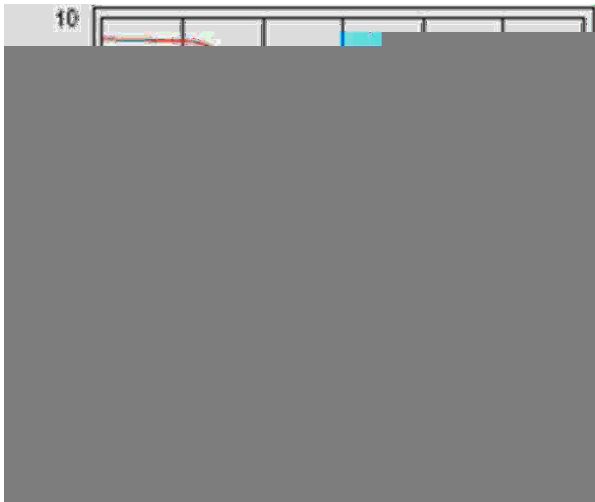


Figure 3. Frequency Response



Figure 4. Group Delay vs. Frequency



Figure 5. Differential Gain



Figure 6. Differential Phase



Figure 7. Noise vs. Frequency

## Typical Performance Characteristics

Unless otherwise noted,  $T_A = 25^\circ\text{C}$ ,  $V_{CC} = 5.0\text{V}$ ,  $R_s = 37.5 \Omega$ , and AC-coupled output into  $150 \Omega$  load,  $C_{V_{OUT}}$ .



Figure 8. Modulator vs. Frequency Response

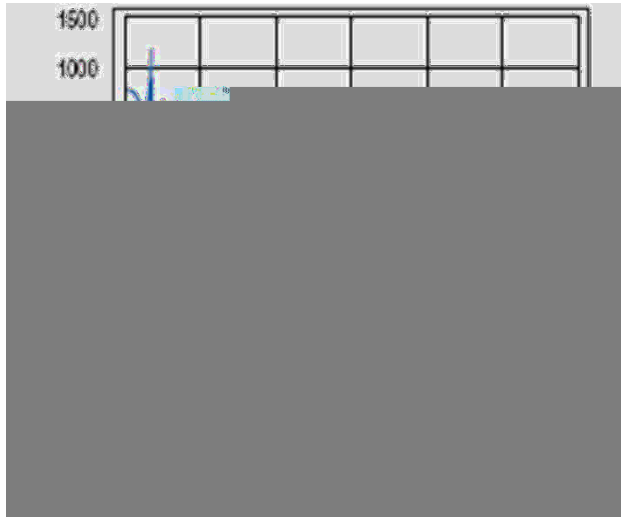


Figure 9. Delay Modulator Output



Figure 10. Differential Gain, MOD<sub>OUT</sub>

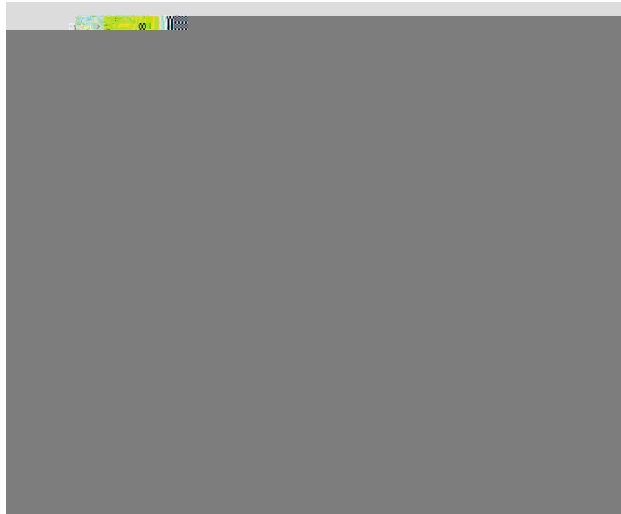


Figure 11. Differential Phase, MOD<sub>OUT</sub>



Figure 12. Noise vs. Frequency Modulator Channel

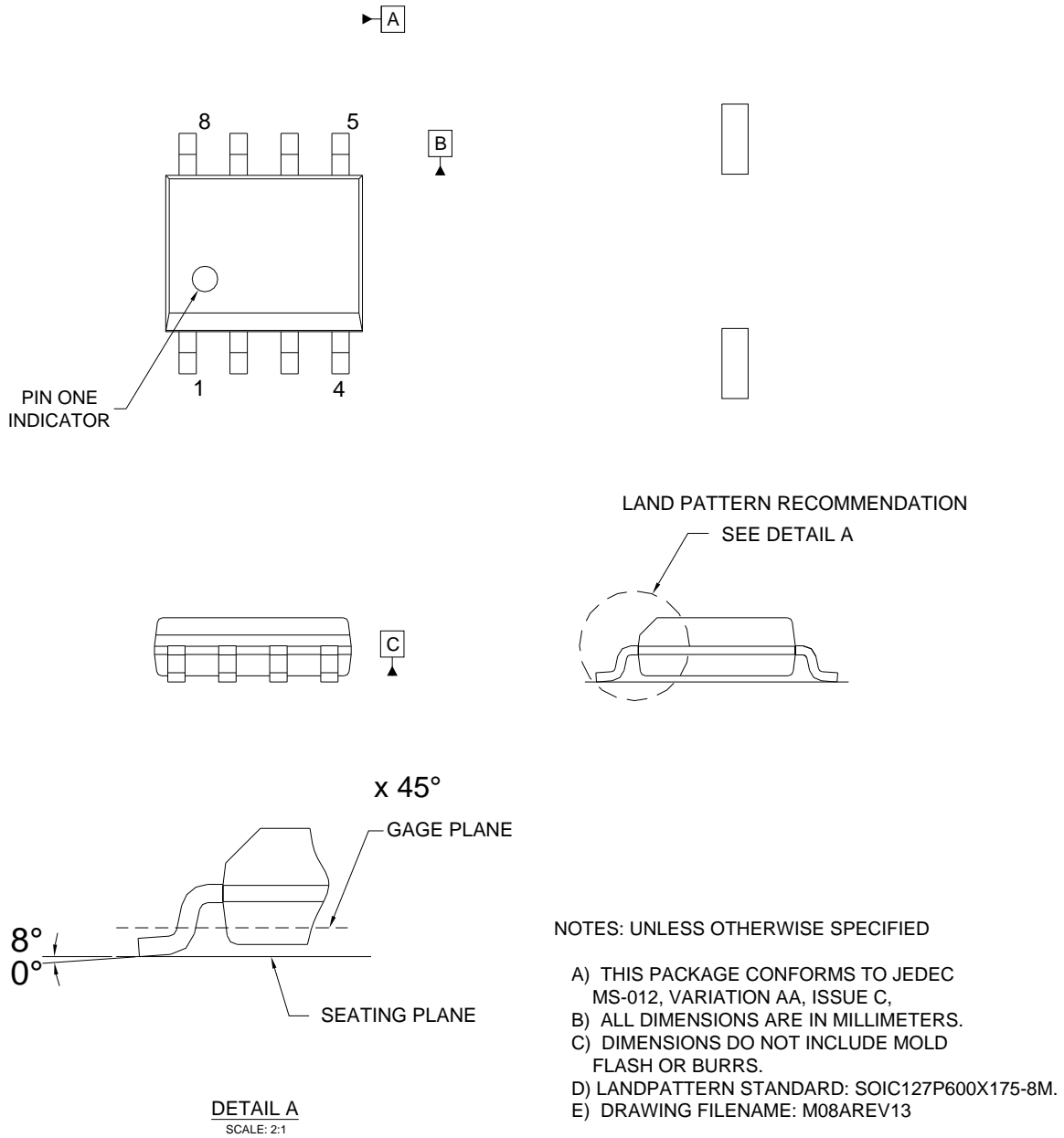


Figure 13. Group Delay vs. Frequency





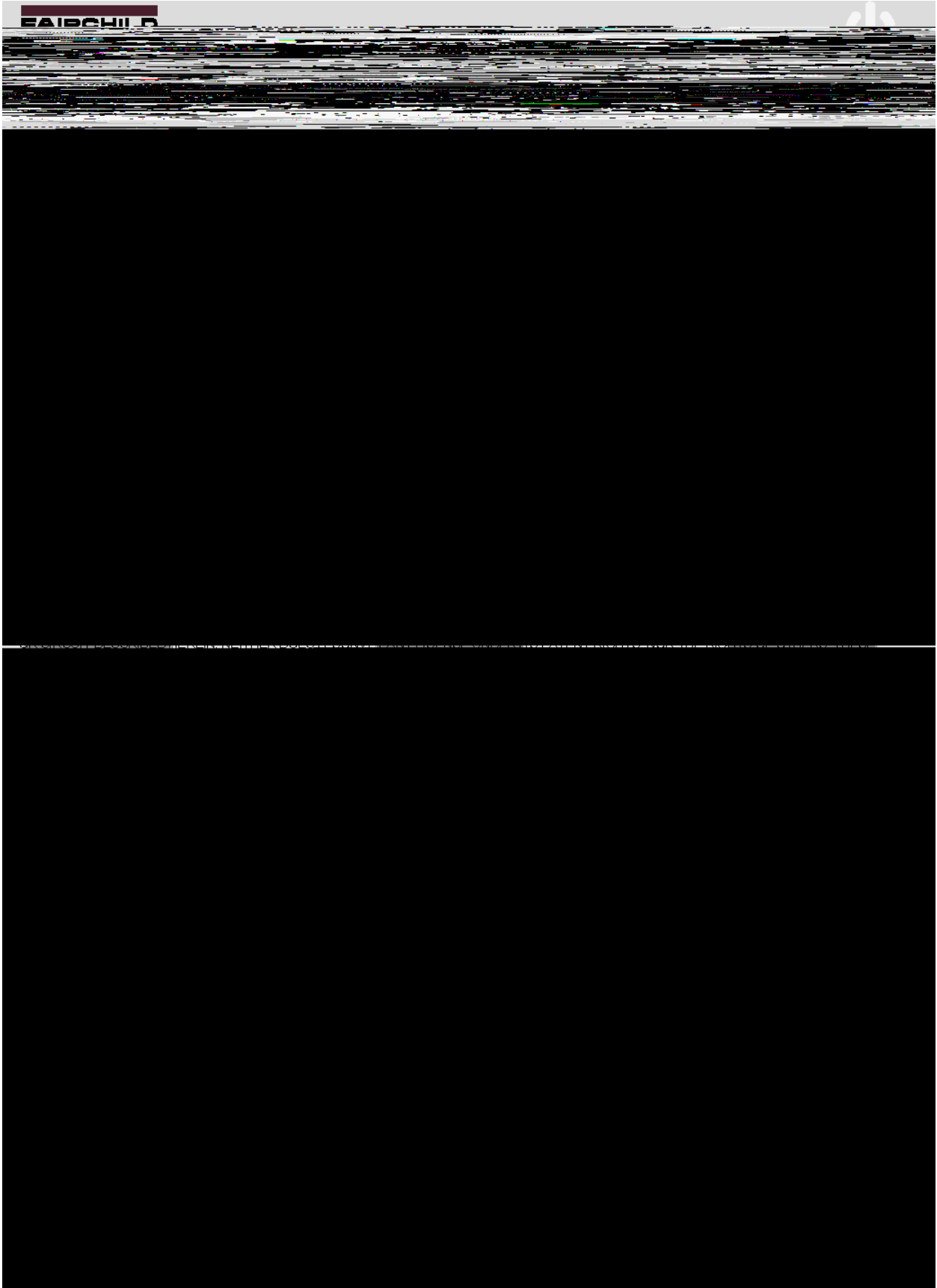
## Physical Dimensions




**Figure 15. 8-Lead, Small-Outline Integrated Circuit (SOIC), JEDEC MS-012, .150" Narrow Body**

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