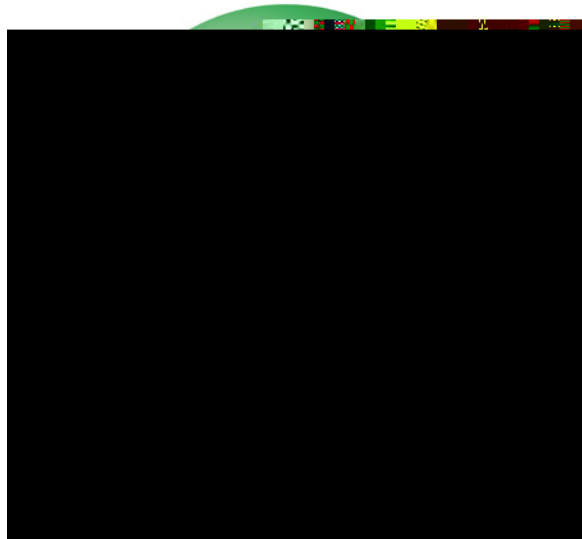




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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not 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).

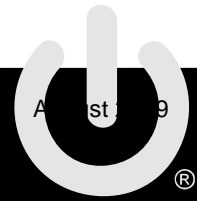
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Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use ON Semiconductor products for any such unintended

**FAIRCHILD**

EMI-8

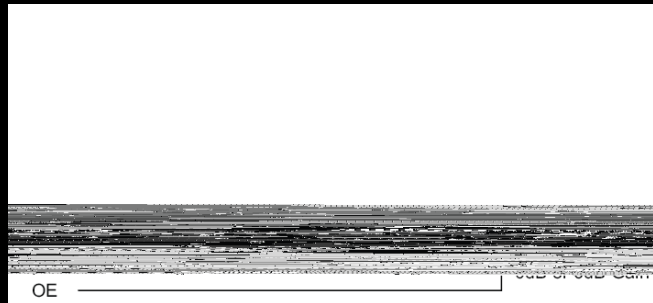


FMS

# FMS6 Low-

## Featur

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## Pin Configuration

## 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
V <sub>CC</sub>	DC Supply Voltage	-0.3	6.0	V
V <sub>IO</sub>	Analog and Digital I/O	-0.3	V <sub>CC</sub> +0.3	V
I <sub>OUT</sub>	Output Current, Any One Channel, Do Not Exceed		50	mA

## Reliability Information

Symbol	Parameter	Min.	Typ.	Max.	Unit
T <sub>J</sub>	Junction Temperature			+150	°C
T <sub>STG</sub>	Storage Temperature Range	-65		+150	°C
T <sub>L</sub>	Lead Temperature, Soldering 10 Seconds			+300	°C
Θ <sub>JA</sub>	Thermal Resistance, JEDEC Standard Multi-Layer Test Boards, Still Air		97		°C/W

## Electrostatic Discharge Information

Symbol	Parameter	Max.	Unit
ESD	Human Body Model, JESD22-A114	8	kV
	Charged Device Model, JESD22-C101	2	

## 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.	Typ.	Max.	Unit
T <sub>A</sub>	Operating Temperature Range	-40		+85	°C

## DC Electrical Characteristics

Unless otherwise noted,  $T_A=25^{\circ}\text{C}$ ,  $V_{CC}=5\text{V}$ ,  $R_{SOURCE}$

### High-Definition Electrical Characteristic

Unless otherwise noted,  $T_A=25^{\circ}\text{C}$ ,  $V_{IN}=1V_{PP}$ ,  $V_{CC}=5V$ ,  $R_{SOURCE}=37.5\Omega$ , inputs AC coupled with  $0.1\mu\text{F}$ , all outputs AC coupled with  $220\mu\text{F}$  into  $150\Omega$  loads, referenced to  $400\text{kHz}$ , all gain options.

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
$AV_{HD}$	Channel Gain Error <sup>(7)</sup>		-0.4	0	0.4	dB
$f_{1dBHD}$	-1dB Bandwidth <sup>(7)</sup>		28	31		MHz

f

## Layout Considerations

General layout and supply bypassing play a major role in high-frequency performance and thermal

## Physical Dimensions





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