

Is Now Part of

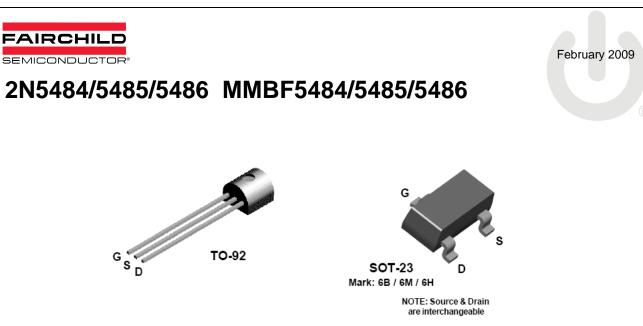


ON Semiconductor®

To learn more about ON Semiconductor, please visit our website at <u>www.onsemi.com</u>

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. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

ON Semiconductor and the ON Semiconductor logo are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using ON Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. ON Semiconductor does not convey any license under its patent rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or unavteries, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out or i, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that ON Semiconductor was negligent regarding the design or manufacture of the part. ON Semiconductor and is officers, employees, uniotificated use, even if such claim any manner.



N-Channel RF Amplifier

This device is designed primarily for electronic switching applications such as low On Resistance analog switching. Sourced from Process 50.

Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{DG}	Drain-Gate Voltage	25	V
V _{GS}	Gate-Source Voltage	- 25	V
I _{GF}	Forward Gate Current	10	mA
T_{J},T_{stg}	Operating and Storage Junction Temperature Range	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

<u>NOTES</u>: 1) These ratings are based on a maximum junction temperature of 150 degrees C.

2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics TA = 25°C unless otherwise noted

Symbol	Characteristic	Мах		Units
		2N5484-5486	*MMBF5484-5486	
PD	Total Device Dissipation	350	225	mW
	Derate above 25°C	2.8	1.8	mW/°C
R _e Jc	Thermal Resistance, Junction to Case	125		°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	556	°C/W

*Device mounted on FR-4 PCB 1.6" X 1.6" X 0.06."

© 2007 Fairchild Semiconductor Corporation 2N5484/5485/5486 MMBF5484/5485/5486 Rev. 1.0.0

N-Channel RF Amplifier (continued)

Symbol	Parameter	Test Conditions	Min	Тур	Max	Units
	RACTERISTICS					
	Gate-Source Breakdown Voltage		- 25			V
IGSS	Gate Reverse Current	$I_G = -1.0 \ \mu A, V_{DS} = 0$ $V_{GS} = -20 \ V, V_{DS} = 0$	- 25		- 1.0	nA
IGSS	Gate Reverse Current				- 0.2	μΑ
V _{GS(off)}	Gate-Source Cutoff Voltage	$\begin{array}{c} V_{\text{GS}}\text{=-20 V}, V_{\text{DS}}\text{=0}, T_{\text{A}}\text{=100}^{\circ}\text{C} \\ V_{\text{DS}}\text{=15 V}, I_{\text{D}}\text{=10 nA} \textbf{5484} \end{array}$	- 0.3		- 3.0	V
		5485 5486	- 0.5 - 2.0		- 4.0 - 6.0	
		5460	- 2.0		- 0.0	v
ON CHAR	ACTERISTICS					
	Zero-Gate Voltage Drain Current*	V _{DS} = 15 V, V _{GS} = 0 5484	1.0		5.0	mA
033	Zore outo voltage brain ourient	5485	4.0		10	mA
		5486	8.0		20	mA
	GNAL CHARACTERISTICS	V _{DS} = 15 V, V _{GS} = 0, f = 1.0 kHz				
9fs	Forward Transfer Conductance	5484	3000		6000	μmho
		5485	3500		7000	μmho
	land Operaturations	5486	4000		8000	μmho
Re(Yis)	Input Conductance	V _{DS} = 15 V, V _{GS} = 0, f = 100 MHz 5484			100	μmho
		$V_{DS} = 15 \text{ V}, \text{ V}_{GS} = 0, \text{ f} = 400 \text{ MHz}$			100	μπιο
		5485 / 5486			1000	μmho
gos	Output Conductance	V _{DS} = 15 V, V _{GS} = 0, f = 1.0 kHz 5484			50	umbo
		5485			60	µmho µmho
		5486			75	μmho
Re ₍ y _{os)}	Output Conductance	V _{DS} = 15 V, V _{GS} = 0, f = 100 MHz			75	
		5484 V _{DS} = 15 V, V _{GS} = 0, f = 400 MHz			75	μmho
		5485 / 5486			100	μmho
Re(Yfs)	Forward Transconductance	V _{DS} = 15 V, V _{GS} = 0, f = 100 MHz				
		5484 V _{DS} = 15 V, V _{GS} = 0, f = 400 MHz	2500			μmho
		5485	3000			μmho
		5486	3500			μmho
Ciss	Input Capacitance	$V_{DS} = 15 V, V_{GS} = 0, f = 1.0 MHz$			5.0	pF
Crss	Reverse Transfer Capacitance	V _{DS} = 15 V, V _{GS} = 0, f = 1.0 MHz			1.0	pF
Coss	Output Capacitance	V _{DS} = 15 V, V _{GS} = 0, f = 1.0 MHz			2.0	pF
NF	Noise Figure	V_{DS} = 15 V, R _G = 1.0 kΩ, f = 100 MHz 5484			3.0	dB
		V _{DS} = 15 V, R _G = 1.0 kΩ, f = 400 MHz 5484		4.0		dB
		V_{DS} = 15 V , R_{G} = 1.0 k Ω ,			2.0	-10
		f = 100 MHz 5485 / 5486			2.0	dB
		V_{DS} = 15 V, R_{G} = 1.0 k Ω ,	1	1	4.0	dB

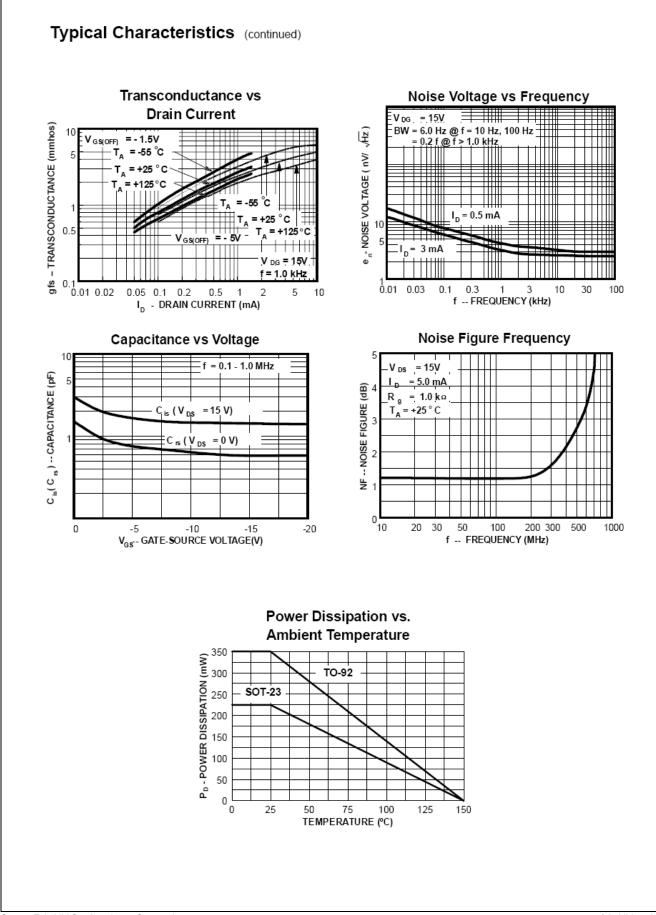
N-Channel RF Amplifier

(continued)

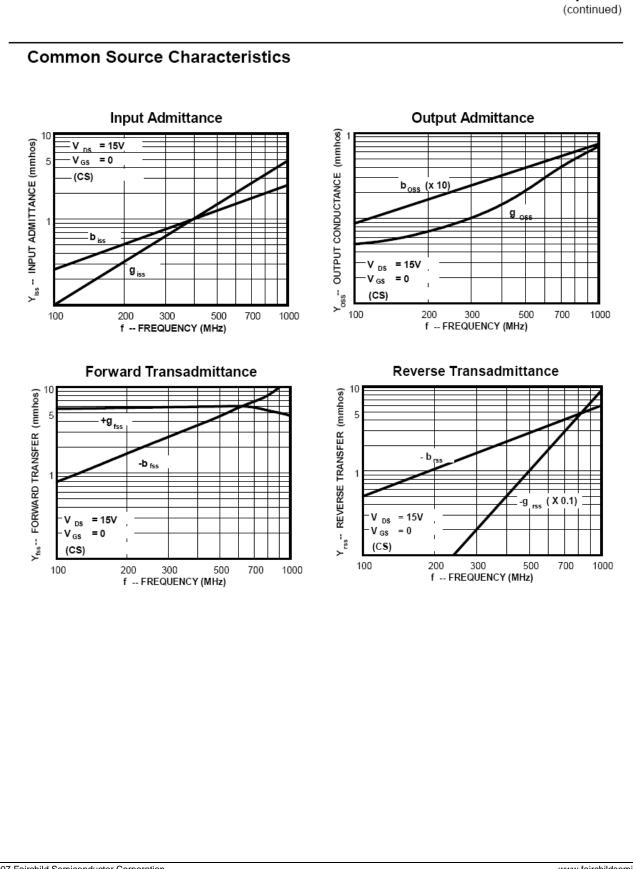
I

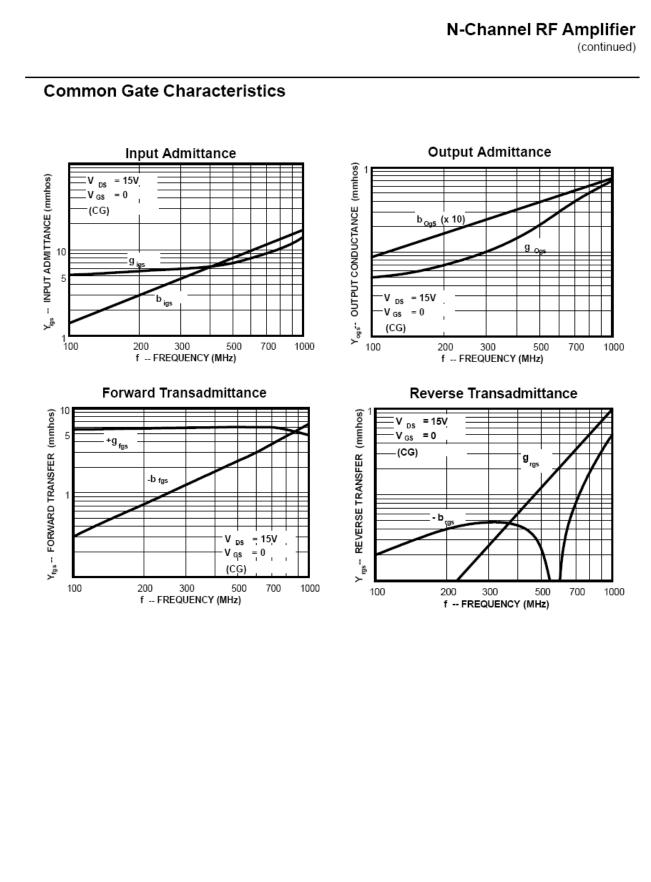
Typical Characteristics Transfer Characteristics **Channel Resistance vs Temperature** 20 1000 -4.5V V GS(OFF) = 15V r_{DS} - DRAIN ON RESISTANCE (Ω) 500 = -55°C T_A -1.0V V_{GS(QFF)} 1(DRAIN CURRENT (mA) 300 = +25 ° C -2.5 V 200 +125° C 12 = -55°C -5.0V TA 100 Τ<u>A</u> = +25 ° C -8.0 V TA +125° C 50 30 ė = 100mV V_{,DS} 20 = 0 V 25 V ν 0 10 0 -2 -4 -5 -50 0 50 100 150 -3 -1 V_{gs}- GATE-SOURCE VOLTAGE(V) TA - AMBIENT TEMPERATURE (C) Common Drain-Source Transconductance Characteristics Characteristics -- TRANSCONDUCTANCE (mmhos) -5 V _{DS} = -55 °C = 15V T_A = +25 ° C I D--- DRAIN CURRENT (mA) = +25 ° C 6 ТҮР v = -5.0V Δ GS(OFF) 2.0V = +125° C 5 0 = -55 °C TA 2 5V 3 = +25 ° C . Т_ 3.0V = +125° C т, 2 3.5V 2 -4.5\ GS(OFF) = 4.0V -2.5 V 0 sf 0 0 0.2 0.4 0.6 0.8 0 1 -3 -1 -2 -4 -5 V_{DS} - DRAIN-SOURCE VOLTAGE(V) V_{gs} GATE-SOURCE VOLTAGE(V) **Output Conductance vs** Transconductance Drain Current Parameter Interactions -- OUTPUT CONDUCTANCE (u mhos) -- DRAIN "ON" RESISTANCE (Ω) 02 gfs, I_{DSS} $P_{SS} @ V_{DS} = 15 V, V_{GS} = 0 PULSE$ $r_{DS} @ V_{DS} = 100mV, V_{GS} = 0$ = +25 °C DRAIN CURRENT (mA) -5.5V 1.0 kHz 5.0\ 20 10V 15V 10 10 5 20\ 20 ν = -3.5V GS(OFF) DSS-- | 0.5 -1.5V @ V_{GS}= 15V, I _D= 1nA V_{GS(OFF)} GS(OFF) ÷ ළී 10 0.1 1 gos . sfg - 2 -3 - 5 0.05 0.1 0.2 0.5 - 7 - 10 1 2 5 10 V GS - GATE-SOURCE VOLTAGE(V) I D-- DRAIN CURRENT (mA)

© 2007 Fairchild Semiconductor Corporation Rev. 1.0.0



N-Channel RF Amplifier







SEMICONDUCTOR

TRADEMARKS

The following are registered and unregistered trademarks and service marks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEx®	Green FPS™	Power247 [®]	SuperSOT™-8
Build it Now™	Green FPS™ e-Series™	POWEREDGE [®]	SyncFET™
CorePLUS™	GTO™	Power-SPM [™]	The Power Franchise [®]
CROSSVOLT™	<i>i-Lo</i> ™	PowerTrench [®]	p wer
CTL™	IntelliMAX™	Programmable Active Droop™	pranchise
Current Transfer Logic™	ISOPLANAR™	QFET®	TinyBoost™
EcoSPARK [®]	MegaBuck™	QS™	TinyBuck™
F [®]	MICROCOUPLER™	QT Optoelectronics [™]	TinyLogic [®]
Fairchild [®]	MicroFET™	Quiet Series [™]	TINYOPTO™
Fairchild Semiconductor [®]	MicroPak™	RapidConfigure™	TinyPower™
FACT Quiet Series™	MillerDrive™	SMART START™	TinyPWM™
FACT®	Motion-SPM [™]	SPM®	TinyWire™
FAST [®]	OPTOLOGIC®	STEALTH™	µSerDes™
FastvCore™	OPTOPLANAR®	SuperFET™	UHC®
FPS™	®	SuperSOT™-3	UniFET™
FRFET [®]	PDP-SPM™	SuperSOT™-6	VCX™
Global Power Resource SM	Power220 [®]		

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

- 1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
- A critical component is any component of a life support 2. device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Datasheet Identification	Product Status	Definition		
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.		
Preliminary	First Production	This datasheet contains preliminary data; supplementary data will be pub- lished at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.		
No Identification Needed Full Production		This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.		
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontin- ued by Fairchild semiconductor. The datasheet is printed for reference infor- mation only.		

PRODUCT STATUS DEFINITIONS

ON Semiconductor and are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at <u>www.onsemi.com/site/pdf/Patent-Marking.pdf</u>. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using ON Semiconductor products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by ON Semiconductor. "Typical" parameters which may be provided in ON Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. ON Semiconductor does not convey any license under its patent rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA 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 haves against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death a

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor 19521 E. 32nd Pkwy, Aurora, Colorado 80011 USA Phone: 303-675-2175 or 800-344-3860 Toll Free USA/Canada Fax: 303-675-2176 or 800-344-3867 Toll Free USA/Canada Email: orderlit@onsemi.com N. American Technical Support: 800–282–9855 Toll Free USA/Canada Europe, Middle East and Africa Technical Support: Phone: 421 33 790 2910

Japan Customer Focus Center Phone: 81-3-5817-1050 ON Semiconductor Website: www.onsemi.com

Order Literature: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative

© Semiconductor Components Industries, LLC

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ON Semiconductor: MMBF5485_Q MMBF5485



ООО "ЛайфЭлектроникс"

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 3010181090000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный) Email: org@lifeelectronics.ru

www.lifeelectronics.ru