



Is Now Part of



ON Semiconductor®

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

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 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 nor the 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 products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, 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 is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

FDME1034CZT

Complementary PowerTrench® MOSFET

N-channel: 20 V, 3.8 A, 66 mΩ P-channel: -20 V, -2.6 A, 142 mΩ

Features

Q1: N-Channel

- Max $r_{DS(on)}$ = 66 mΩ at $V_{GS} = 4.5$ V, $I_D = 3.4$ A
- Max $r_{DS(on)}$ = 86 mΩ at $V_{GS} = 2.5$ V, $I_D = 2.9$ A
- Max $r_{DS(on)}$ = 113 mΩ at $V_{GS} = 1.8$ V, $I_D = 2.5$ A
- Max $r_{DS(on)}$ = 160 mΩ at $V_{GS} = 1.5$ V, $I_D = 2.1$ A

Q2: P-Channel

- Max $r_{DS(on)}$ = 142 mΩ at $V_{GS} = -4.5$ V, $I_D = -2.3$ A
- Max $r_{DS(on)}$ = 213 mΩ at $V_{GS} = -2.5$ V, $I_D = -1.8$ A
- Max $r_{DS(on)}$ = 331 mΩ at $V_{GS} = -1.8$ V, $I_D = -1.5$ A
- Max $r_{DS(on)}$ = 530 mΩ at $V_{GS} = -1.5$ V, $I_D = -1.2$ A

- Low profile: 0.55 mm maximum in the new package MicroFET 1.6x1.6 Thin

- Free from halogenated compounds and antimony oxides

- HBM ESD protection level > 1600 V (Note 3)

- RoHS Compliant



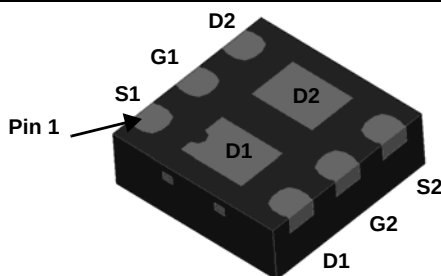
General Description

This device is designed specifically as a single package solution for a DC/DC 'Switching' MOSFET in cellular handset and other ultra-portable applications. It features an independent N-Channel & P-Channel MOSFET with low on-state resistance for minimum conduction losses. The gate charge of each MOSFET is also minimized to allow high frequency switching directly from the controlling device.

The MicroFET 1.6x1.6 Thin package offers exceptional thermal performance for its physical size and is well suited to switching and linear mode applications.

Applications

- DC-DC Conversion
- Level Shifted Load Switch

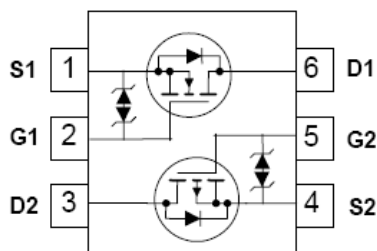


BOTTOM



TOP

MicroFET 1.6x1.6 Thin



MOSFET Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Q1	Q2	Units
V _{DS}	Drain to Source Voltage	20	-20	V
V _{GS}	Gate to Source Voltage	±8	±8	V
I _D	Drain Current -Continuous T _A = 25 °C (Note 1a)	3.8	-2.6	A

Thermal Characteristics

$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Single Operation) (Note 1a)	90	$^\circ\text{C/W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Single Operation) (Note 1b)	195	

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
5T	FDME1034CZT	MicroFET 1.6x1.6 Thin	7"	8 mm	5000 units

Electrical Characteristics $T_J = 25\text{ }^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Type	Min	Typ	Max	Units
--------	-----------	-----------------	------	-----	-----	-----	-------

Off Characteristics

BV_{DSS}	Drain to Source Breakdown Voltage	$I_D = 250\text{ }\mu\text{A}$, $V_{GS} = 0\text{ V}$ $I_D = -250\text{ }\mu\text{A}$, $V_{GS} = 0\text{ V}$	Q1 Q2	20 -20			V
$\frac{\Delta BV_{DSS}}{\Delta T_J}$	Breakdown Voltage Temperature Coefficient	$I_D = 250\text{ }\mu\text{A}$, referenced to $25\text{ }^{\circ}\text{C}$ $I_D = -250\text{ }\mu\text{A}$, referenced to $25\text{ }^{\circ}\text{C}$	Q1 Q2		16 -12		mV/ $^{\circ}\text{C}$
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = 16\text{ V}$, $V_{GS} = 0\text{ V}$ $V_{DS} = -16\text{ V}$, $V_{GS} = 0\text{ V}$	Q1 Q2			1 -1	μA
I_{GSS}	Gate to Source Leakage Current	$V_{GS} = \pm 8\text{ V}$, $V_{DS} = 0\text{ V}$	All			± 10	μA

On Characteristics

$V_{GS(th)}$	Gate to Source Threshold Voltage	$V_{GS} = V_{DS}$, $I_D = 250\text{ }\mu\text{A}$ $V_{GS} = V_{DS}$, $I_D = -250\text{ }\mu\text{A}$	Q1 Q2	0.4 -0.4	0.7 -0.6	1.0 -1.0	V
$\frac{\Delta V_{GS(th)}}{\Delta T_J}$	Gate to Source Threshold Voltage Temperature Coefficient	$I_D = 250\text{ }\mu\text{A}$, referenced to $25\text{ }^{\circ}\text{C}$	Q1 Q2		-3 2		mV/ $^{\circ}\text{C}$
$r_{DS(on)}$	Drain to Source On Resistance	$V_{GS} = 4.5\text{ V}$, $I_D = 3.4\text{ A}$	Q1		55	66	m Ω
		$V_{GS} = 2.5\text{ V}$, $I_D = 2.9\text{ A}$			68	86	
		$V_{GS} = 1.8\text{ V}$, $I_D = 2.5\text{ A}$			85	113	
		$V_{GS} = 1.5\text{ V}$, $I_D = 2.1\text{ A}$			106	160	
		$V_{GS} = 4.5\text{ V}$, $I_D = 3.4\text{ A}$, $T_J = 125\text{ }^{\circ}\text{C}$			76	112	
		$V_{GS} = -4.5\text{ V}$, $I_D = -2.3\text{ A}$	Q2		95	142	
		$V_{GS} = -2.5\text{ V}$, $I_D = -1.8\text{ A}$			120	213	
		$V_{GS} = -1.8\text{ V}$, $I_D = -1.5\text{ A}$			150	331	
		$V_{GS} = -1.5\text{ V}$, $I_D = -1.2\text{ A}$			190	530	
		$V_{GS} = -4.5\text{ V}$, $I_D = -2.3\text{ A}$, $T_J = 125\text{ }^{\circ}\text{C}$			128	190	
g_{FS}	Forward Transconductance	$V_{DS} = 4.5\text{ V}$, $I_D = 3.4\text{ A}$ $V_{DS} = -4.5\text{ V}$, $I_D = -2.3\text{ A}$	Q1 Q2		9 7		S

Dynamic Characteristics

C_{iss}	Input Capacitance	Q1 Q2		225 305	300 405		pF
C_{oss}	Output Capacitance	$V_{DS} = 10\text{ V}$, $V_{GS} = 0\text{ V}$, $f = 1\text{ MHz}$ Q1 Q2		40 55	55 75		pF
C_{rss}	Reverse Transfer Capacitance	$V_{DS} = -10\text{ V}$, $V_{GS} = 0\text{ V}$, $f = 1\text{ MHz}$ Q1 Q2		25 50	40 75		pF

Switching Characteristics

$t_{d(on)}$	Turn-On Delay Time	Q1 Q2		4.5 4.7	10 10	ns
t_r	Rise Time	$V_{DD} = 10\text{ V}$, $I_D = 1\text{ A}$, $V_{GS} = 4.5\text{ V}$, $R_{GEN} = 6\text{ }\Omega$ Q1 Q2		2.0 4.8	10 10	
$t_{d(off)}$	Turn-Off Delay Time	Q1 Q2		15 33	27 53	
t_f	Fall Time	$V_{GS} = -4.5\text{ V}$, $R_{GEN} = 6\text{ }\Omega$ Q1 Q2		1.7 16	10 29	
Q_g	Total Gate Charge	Q1 $V_{DD} = 10\text{ V}$, $I_D = 3.4\text{ A}$, $V_{GS} = 4.5\text{ V}$ Q2	Q1 Q2	3 5.5	4.2 7.7	nC
Q_{gs}	Gate to Source Gate Charge	Q1 Q2		0.4 0.6		
Q_{gd}	Gate to Drain "Miller" Charge	$V_{DD} = -10\text{ V}$, $I_D = -2.3\text{ A}$, $V_{GS} = -4.5\text{ V}$ Q1 Q2		0.6 1.4		

Electrical Characteristics $T_J = 25\text{ }^{\circ}\text{C}$ unless otherwise noted

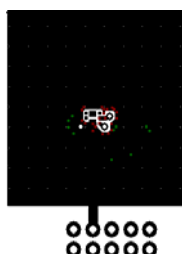
Symbol	Parameter	Test Conditions	Type	Min	Typ	Max	Units
--------	-----------	-----------------	------	-----	-----	-----	-------

Drain-Source Diode Characteristics

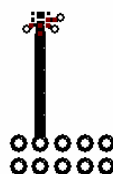
V_{SD}	Source to Drain Diode Forward Voltage	$V_{GS} = 0\text{ V}$, $I_S = 0.9\text{ A}$ (Note 2)	Q1		0.7	1.2	V
		$V_{GS} = 0\text{ V}$, $I_S = -0.9\text{ A}$ (Note 2)	Q2		-0.8	-1.2	
t_{rr}	Reverse Recovery Time	Q1 $I_F = 3.4\text{ A}$, $di/dt = 100\text{ A}/\mu\text{S}$	Q1		8.5	17	ns
			Q2		16	29	
Q_{rr}	Reverse Recovery Time	Q2 $I_F = -2.3\text{ A}$, $di/dt = 100\text{ A}/\mu\text{S}$	Q1		1.4	10	nC
			Q2		4.4	10	

Notes:

- $R_{\theta JA}$ is determined with the device mounted on a 1 in² pad 2 oz copper pad on a 1.5 x 1.5 in. board of FR-4 material. $R_{\theta JC}$ is guaranteed by design while $R_{\theta CA}$ is determined by the user's board design.



a. 90 °C/W when mounted on a 1 in² pad of 2 oz copper.



b. 195 °C/W when mounted on a minimum pad of 2 oz copper.

- Pulse Test: Pulse Width < 300 μs , Duty cycle < 2.0%.

- The diode connected between the gate and source serves only as protection ESD. No gate overvoltage rating is implied.

Typical Characteristics (Q1 N-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

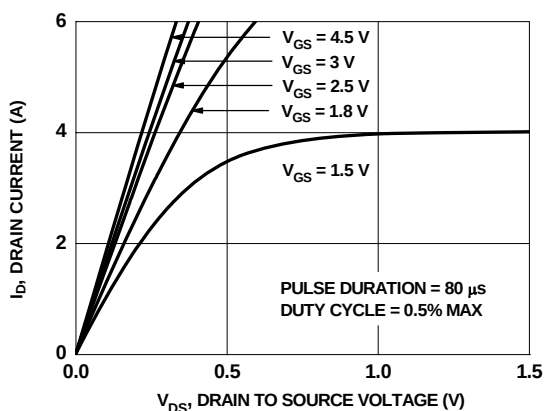


Figure 1. On Region Characteristics

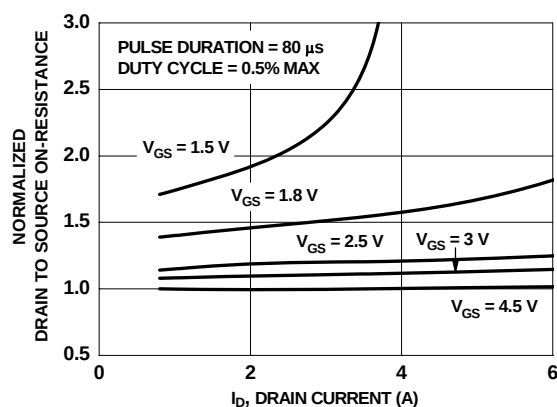


Figure 2. Normalized On-Resistance vs Drain Current and Gate Voltage

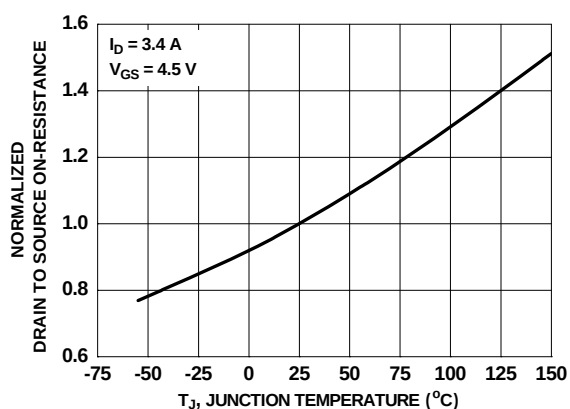


Figure 3. Normalized On Resistance vs Junction Temperature

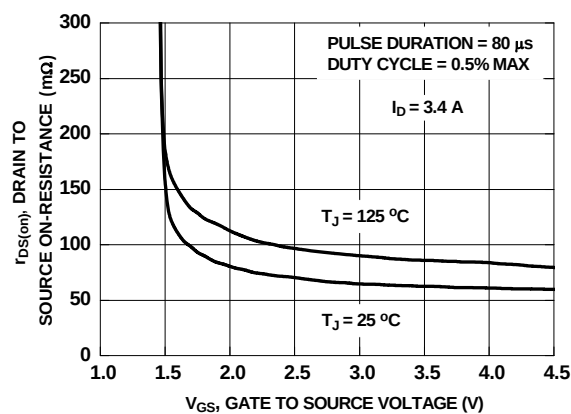


Figure 4. On-Resistance vs Gate to Source Voltage

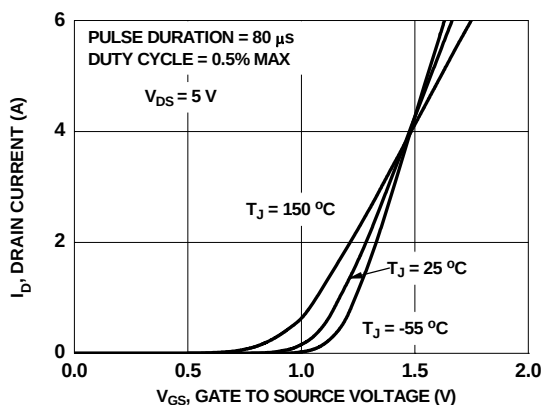


Figure 5. Transfer Characteristics

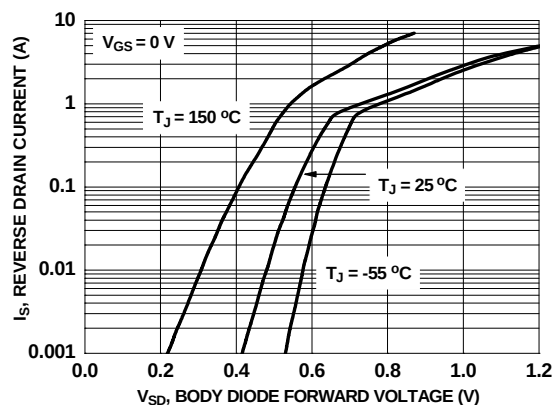


Figure 6. Source to Drain Diode Forward Voltage vs Source Current

Typical Characteristics (Q1 N-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

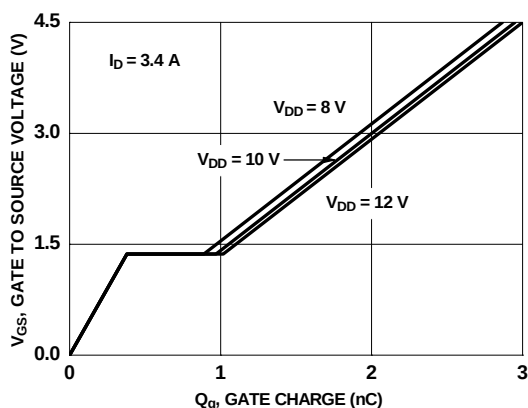


Figure 7. Gate Charge Characteristics

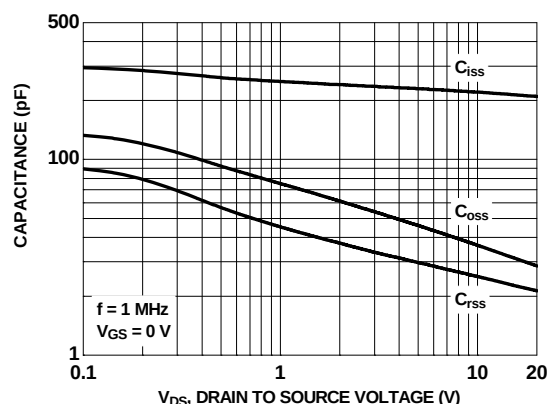


Figure 8. Capacitance vs Drain to Source Voltage

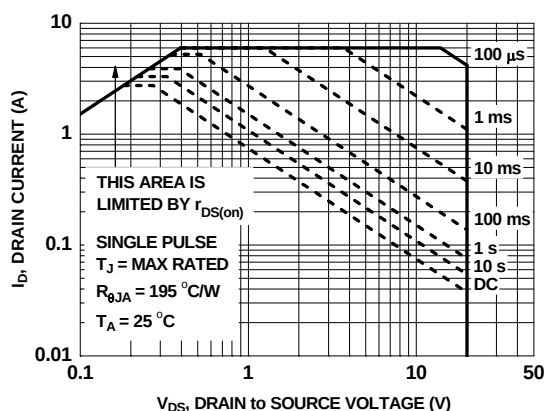


Figure 9. Forward Bias Safe Operating Area

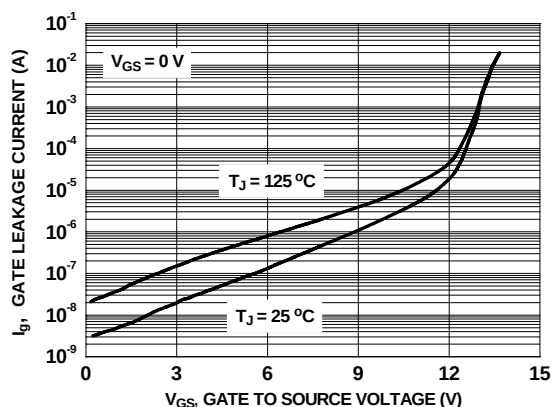


Figure 10. Gate Leakage Current vs Gate to Source Voltage

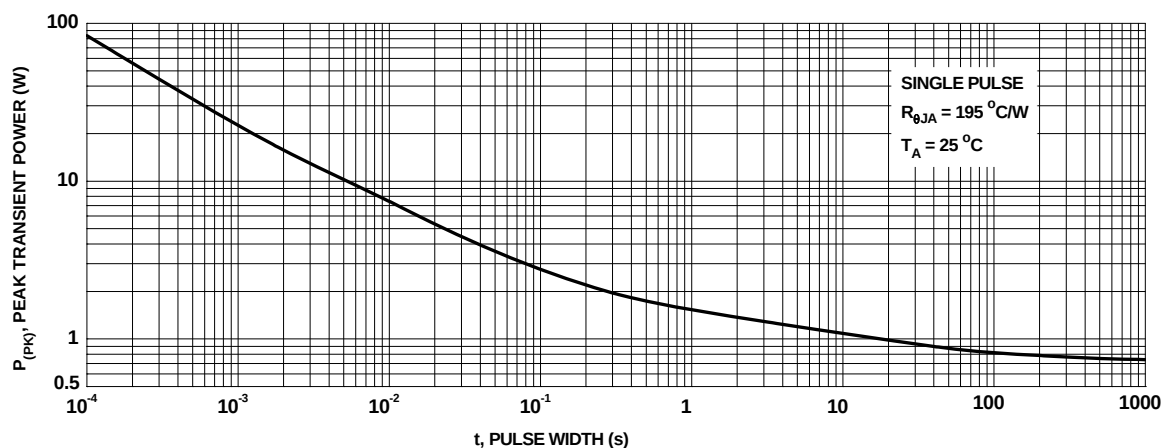


Figure 11. Single Pulse Maximum Power Dissipation

Typical Characteristics (Q1 N-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

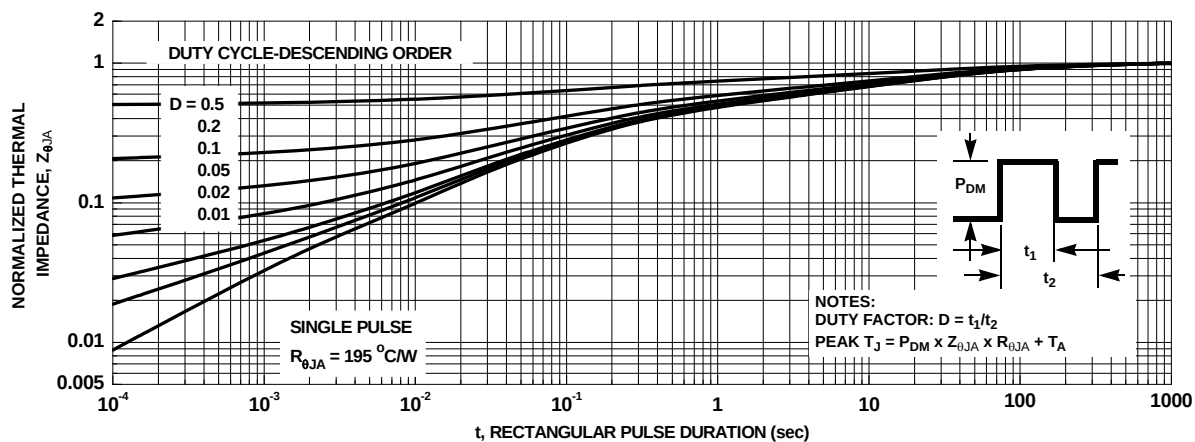


Figure 12. Junction-to-Ambient Transient Thermal Response Curve

Typical Characteristics (Q2 P-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

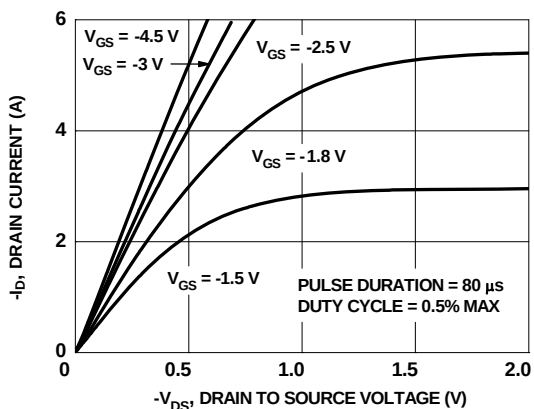


Figure 13. On-Region Characteristics

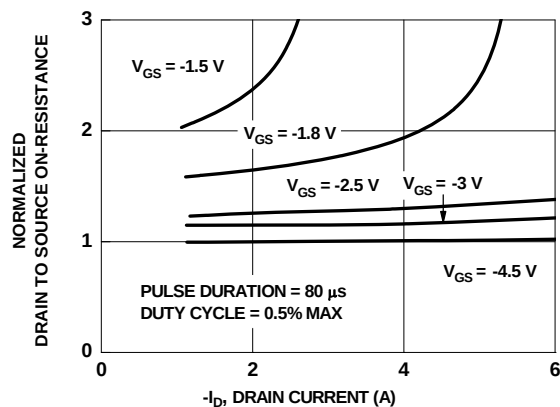


Figure 14. Normalized on-Resistance vs Drain Current and Gate Voltage

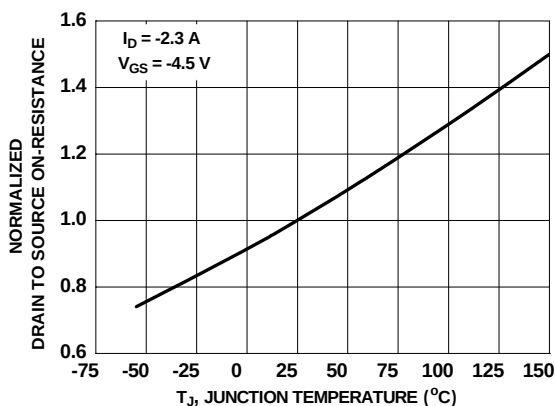


Figure 15. Normalized On-Resistance vs Junction Temperature

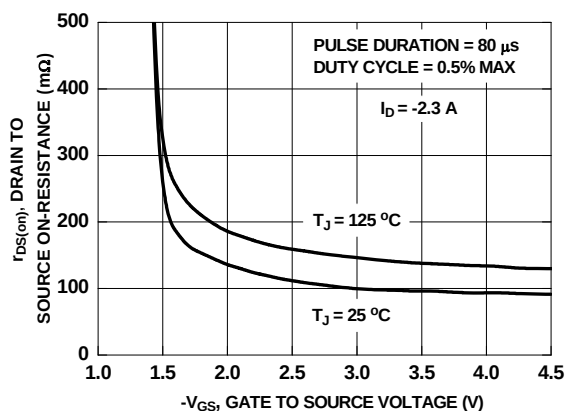


Figure 16. On-Resistance vs Gate to Source Voltage

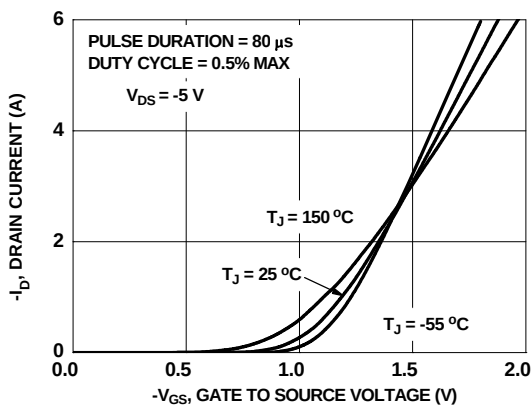


Figure 17. Transfer Characteristics

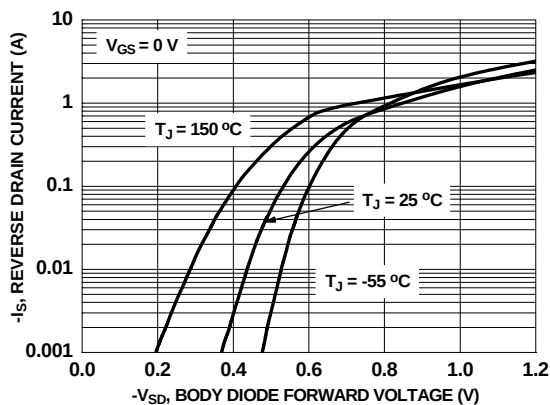


Figure 18. Source to Drain Diode Forward Voltage vs Source Current

Typical Characteristics (Q2 P-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

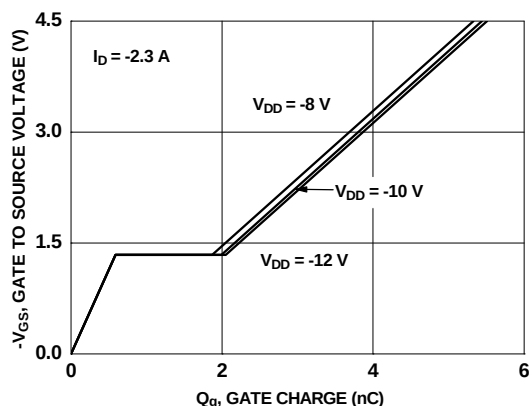


Figure 19. Gate Charge Characteristics

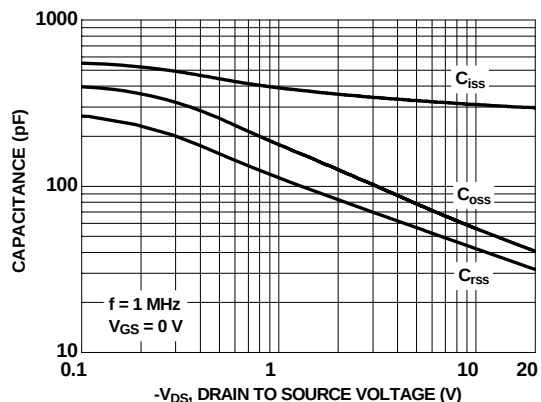


Figure 20. Capacitance vs Drain to Source Voltage

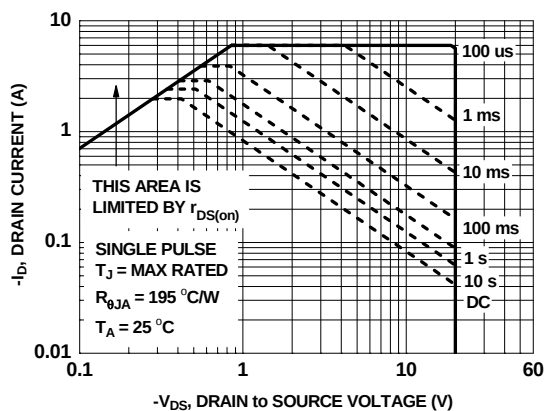


Figure 21. Forward Bias Safe Operating Area

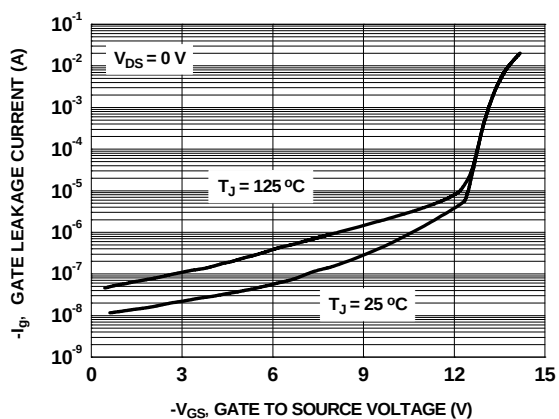


Figure 22. Gate Leakage Current vs Gate to Source Voltage

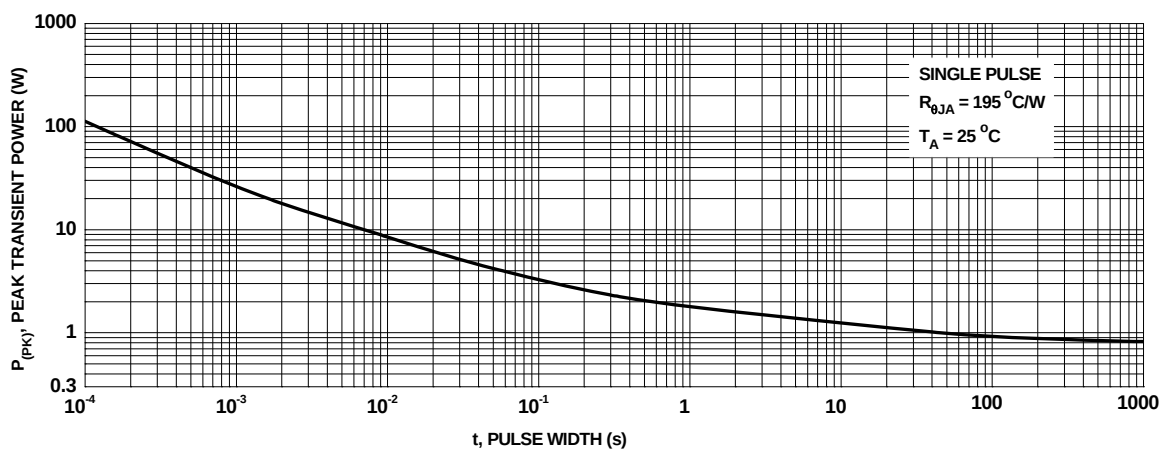


Fig 23. Single Pulse Maximum Power Dissipation

Typical Characteristics (Q2 P-Channel) $T_J = 25^\circ\text{C}$ unless otherwise noted

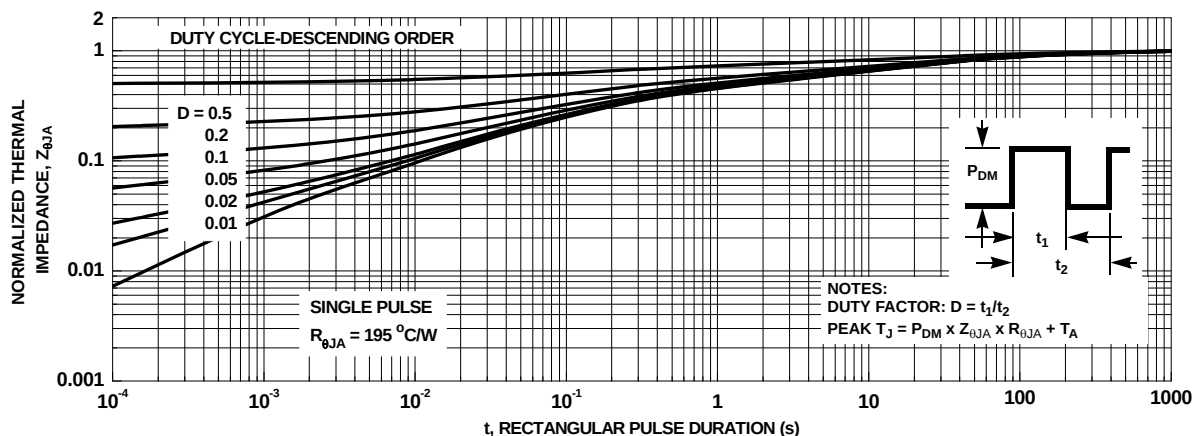


Figure 24. Junction-to-Ambient Transient Thermal Response Curve



TRADEMARKS

The following includes registered and unregistered trademarks and service marks, owned by Fairchild Semiconductor and/or its global subsidiaries, and is not intended to be an exhaustive list of all such trademarks.

AccuPower™
Auto-SPM™
Build it Now™
CorePLUS™
CorePOWER™
CROSSVOLT™
CTL™
Current Transfer Logic™
DEUXPEED®
Dual Cool™
EcoSPARK®
EfficientMax™
ESBC™
F®
Fairchild®
Fairchild Semiconductor®
FACT Quiet Series™
FACT®
FAST®
FastvCore™
FETBench™
FlashWriter® *
FPS™

F-PFS™
FRFET®
Global Power ResourceSM
Green FPS™
Green FPS™ e-Series™
Gmax™
GTO™
IntelliMAX™
ISOPLANAR™
MegaBuck™
MICROCOUPLER™
MicroFET™
MicroPak™
MicroPak2™
MillerDrive™
MotionMax™
Motion-SPM™
OptiHiT™
OPTOLOGIC®
OPTOPLANAR®

PDP SPM™

Power-SPM™
PowerTrench®
PowerXS™
Programmable Active Droop™
QFET®
QS™
Quiet Series™
RapidConfigure™

Saving our world, 1mW/W/kW at a time™
SignalWise™
SmartMax™
SMART START™
SPM®
STEALTH™
SuperFET™
SuperSOT™-3
SuperSOT™-6
SuperSOT™-8
SupreMOS™
SyncFET™
Sync-Lock™

SYSTEM®*
GENERAL
The Power Franchise®
the
power®
franchise
TinyBoost™
TinyBuck™
TinyCalc™
TinyLogic®
TINYOPTO™
TinyPower™
TinyPWM™
TinyWire™
TriFault Detect™
TRUECURRENT™*
µSerDes™

UHC®
Ultra FRFET™
UniFET™
VCX™
VisualMax™
XS™

*Trademarks of System General Corporation, used under license by Fairchild Semiconductor.

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 here in:

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 a significant injury of the user.
2. A critical component in any component of a life support, 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.

ANTI-COUNTERFEITING POLICY

Fairchild Semiconductor Corporation's Anti-Counterfeiting Policy. Fairchild's Anti-Counterfeiting Policy is also stated on our external website, www.fairchildsemi.com, under Sales Support.

Counterfeiting of semiconductor parts is a growing problem in the industry. All manufactures of semiconductor products are experiencing counterfeiting of their parts. Customers who inadvertently purchase counterfeit parts experience many problems such as loss of brand reputation, substandard performance, failed application, and increased cost of production and manufacturing delays. Fairchild is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. Fairchild strongly encourages customers to purchase Fairchild parts either directly from Fairchild or from Authorized Fairchild Distributors who are listed by country on our web page cited above. Products customers buy either from Fairchild directly or from Authorized Fairchild Distributors are genuine parts, have full traceability, meet Fairchild's quality standards for handling and storage and provide access to Fairchild's full range of up-to-date technical and product information. Fairchild and our Authorized Distributors will stand behind all warranties and will appropriately address and warranty issues that may arise. Fairchild will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. Fairchild is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative / In Design	Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published 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	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

Rev. I48

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 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 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 nor the 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 products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, 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 is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

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

Mouser Electronics

Authorized Distributor

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

[ON Semiconductor:](#)

[FDME1034CZT](#)

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9