



Is Now Part of



ON Semiconductor®

To learn more about ON Semiconductor, please visit our website at

www.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.

FDMQ8203

GreenBridge™ Series of High-Efficiency Bridge Rectifiers Dual N-Channel and Dual P-Channel PowerTrench® MOSFET

N-Channel: 100 V, 6 A, 110 mΩ P-Channel: -80 V, -6 A, 190 mΩ

Features

Q1/Q4: N-Channel

- Max $r_{DS(on)}$ = 110 mΩ at $V_{GS} = 10$ V, $I_D = 3$ A
- Max $r_{DS(on)}$ = 175 mΩ at $V_{GS} = 6$ V, $I_D = 2.4$ A

Q2/Q3: P-Channel

- Max $r_{DS(on)}$ = 190 mΩ at $V_{GS} = -10$ V, $I_D = -2.3$ A
- Max $r_{DS(on)}$ = 235 mΩ at $V_{GS} = -4.5$ V, $I_D = -2.1$ A
- Substantial efficiency benefit in PD solutions
- RoHS Compliant

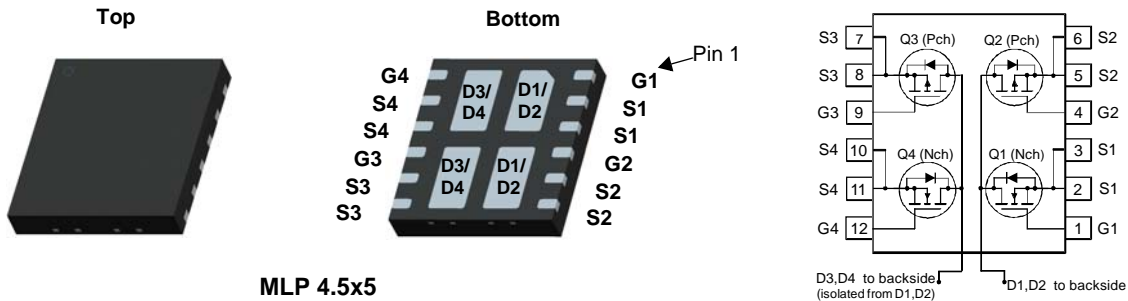


General Description

This quad mosfet solution provides ten-fold improvement in power dissipation over diode bridge.

Application

- High-Efficiency Bridge Rectifiers



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

Symbol	Parameter	Q1/Q4	Q2/Q3	Units
V_{DS}	Drain to Source Voltage	100	-80	V
V_{GS}	Gate to Source Voltage	± 20	± 20	V
I_D	Drain Current -Continuous (Package limited) $T_C = 25^\circ\text{C}$	6	-6	A
	-Continuous (Silicon limited) $T_C = 25^\circ\text{C}$	10	-10	
	-Continuous $T_A = 25^\circ\text{C}$ (Note 1a)	3.4	-2.6	
	-Pulsed	12	-10	
P_D	Power Dissipation for Single Operation $T_C = 25^\circ\text{C}$	22	37	W
	Power Dissipation for Dual Operation $T_A = 25^\circ\text{C}$ (Note 1a)	2.5		
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150		$^\circ\text{C}$

Thermal Characteristics

$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Note 1a)	50	$^\circ\text{C/W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Note 1b)	160	

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
FDMQ8203	FDMQ8203	MLP4.5x5	13 "	12 mm	3000 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/Q4 Q2/Q3	100 -80			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/Q4 Q2/Q3		72 -79		mV/ $^\circ\text{C}$
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = 80\text{ V}, V_{GS} = 0\text{ V}$ $V_{DS} = -64\text{ V}, V_{GS} = 0\text{ V}$	Q1/Q4 Q2/Q3			1 -1	μA μA
I_{GSS}	Gate to Source Leakage Current	$V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$	Q1/Q4 Q2/Q3			± 100 ± 100	nA nA

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/Q4 Q2/Q3	2 -1	3 -1.6	4 -3	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 $25\text{ }^\circ\text{C}$ $I_D = -250\text{ }\mu\text{A}$, referenced to $25\text{ }^\circ\text{C}$	Q1/Q4 Q2/Q3		-8 5		mV/ $^\circ\text{C}$
$r_{DS(on)}$	Drain to Source On Resistance	$V_{GS} = 10\text{ V}, I_D = 3\text{ A}$ $V_{GS} = 6\text{ V}, I_D = 2.4\text{ A}$ $V_{GS} = 10\text{ V}, I_D = 3\text{ A}, T_J = 125\text{ }^\circ\text{C}$ $V_{GS} = -10\text{ V}, I_D = -2.3\text{ A}$ $V_{GS} = -4.5\text{ V}, I_D = -2.1\text{ A}$ $V_{GS} = -10\text{ V}, I_D = -2.3\text{ A}, T_J = 125\text{ }^\circ\text{C}$	Q1/Q4 Q2/Q3		85 118 147 161 188 273	110 175 191 190 235 323	$\text{m}\Omega$
g_{FS}	Forward Transconductance	$V_{DS} = 10\text{ V}, I_D = 3\text{ A}$ $V_{DS} = -10\text{ V}, I_D = -2.3\text{ A}$	Q1/Q4 Q2/Q3		6 6		S

Dynamic Characteristics

C_{iss}	Input Capacitance	Q1/Q4: $V_{DS} = 50\text{ V}, V_{GS} = 0\text{ V}, f = 1\text{ MHz}$	Q1/Q4 Q2/Q3		158 639	210 850	pF
C_{oss}	Output Capacitance	Q2/Q3:	Q1/Q4 Q2/Q3		41 46	55 65	pF
C_{riss}	Reverse Transfer Capacitance	$V_{DS} = -40\text{ V}, V_{GS} = 0\text{ V}, f = 1\text{ MHz}$	Q1/Q4 Q2/Q3		2.6 24	5 40	pF

Switching Characteristics

$t_{d(on)}$	Turn-On Delay Time	Q1/Q4:	Q1/Q4 Q2/Q3		3.8 4.7	10 10	ns
t_r	Rise Time	$V_{DD} = 50\text{ V}, I_D = 3\text{ A},$ $V_{GS} = 10\text{ V}, R_{GEN} = 6\text{ }\Omega$	Q1/Q4 Q2/Q3		1.3 2.8	10 10	ns
$t_{d(off)}$	Turn-Off Delay Time	Q2/Q3:	Q1/Q4 Q2/Q3		7.5 22	15 35	ns
t_f	Fall Time	$V_{DD} = -40\text{ V}, I_D = -2.3\text{ A},$ $V_{GS} = -10\text{ V}, R_{GEN} = 6\text{ }\Omega$	Q1/Q4 Q2/Q3		1.9 2.7	10 10	ns
Q_g	Total Gate Charge	$V_{GS} = 0\text{ V to }10\text{ V}$ $V_{GS} = 0\text{ V to }-10\text{ V}$	Q1/Q4: Q2/Q3		2.9 13	5 19	nC
Q_g	Total Gate Charge	$V_{GS} = 0\text{ V to }5\text{ V}$ $V_{GS} = 0\text{ V to }-4.5\text{ V}$	Q1/Q4: Q2/Q3		1.6 6.4	3 10	nC
Q_{gs}	Gate to Source Gate Charge	Q2/Q3: $V_{DD} = -40\text{ V},$ $I_D = -2.3\text{ A}$	Q1/Q4 Q2/Q3		0.8 1.6		nC
Q_{gd}	Gate to Drain "Miller" Charge		Q1/Q4 Q2/Q3		0.8 2.6		nC

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	$V_{GS} = 0\text{ V}, I_S = 3\text{ A}$ (Note 2)	Q1/Q4		0.86	1.3	V
		$V_{GS} = 0\text{ V}, I_S = -2.3\text{ A}$ (Note 2)	Q2/Q3		-0.82	-1.3	
t_{rr}	Reverse Recovery Time	$I_F = 3\text{ A}, di/dt = 100\text{ A}/\mu\text{s}$	Q1/Q4		32	52	ns
			Q2/Q3		26	42	
Q_{rr}	Reverse Recovery Charge	$I_F = -2.3\text{ A}, di/dt = 100\text{ A}/\mu\text{s}$	Q1/Q4		21	34	nC
			Q2/Q3		26	42	

Notes:

1: $R_{\theta JA}$ 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. 50 °C/W when mounted on a 1 in² pad of 2 oz copper, the board designed Q1+Q3 or Q2+Q4.



b. 160 °C/W when mounted on a minimum pad of 2 oz copper, the board designed Q1+Q3 or Q2+Q4.

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

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

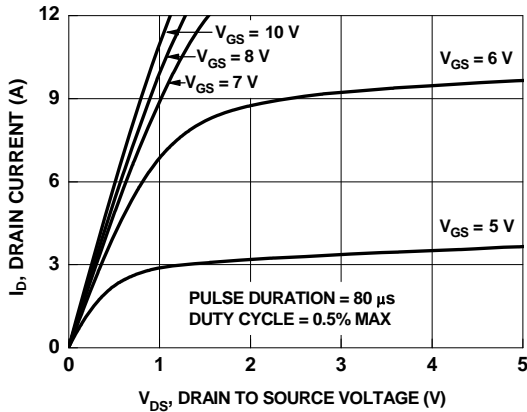


Figure 1. On Region Characteristics

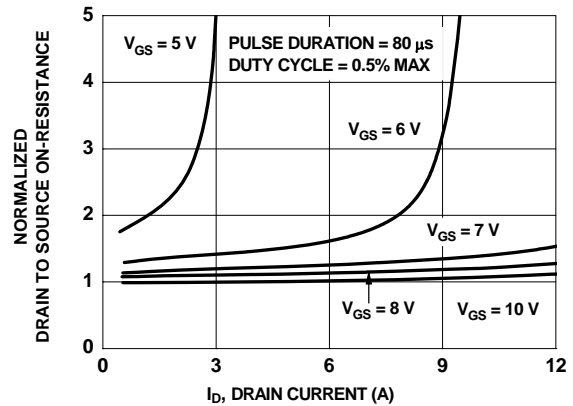


Figure 2. Normalized On-Resistance vs Drain Current and Gate Voltage

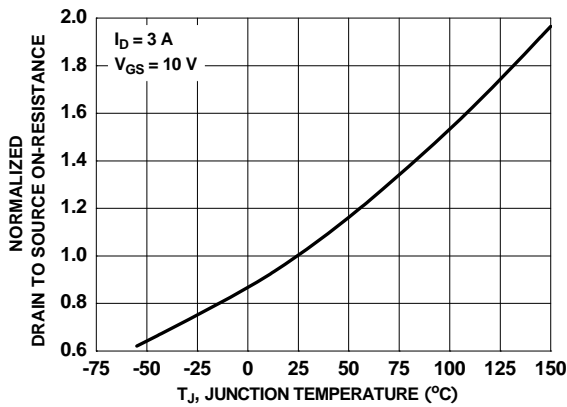


Figure 3. Normalized On Resistance vs Junction Temperature

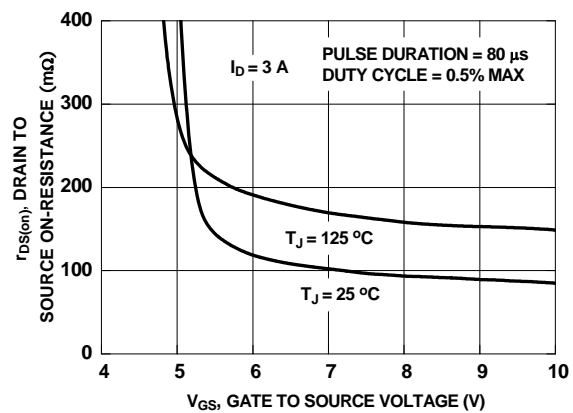


Figure 4. On-Resistance vs Gate to Source Voltage

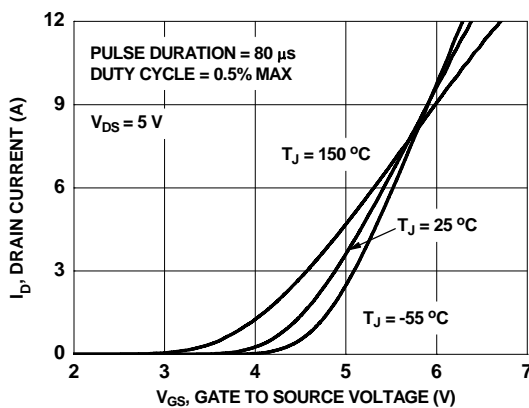


Figure 5. Transfer Characteristics

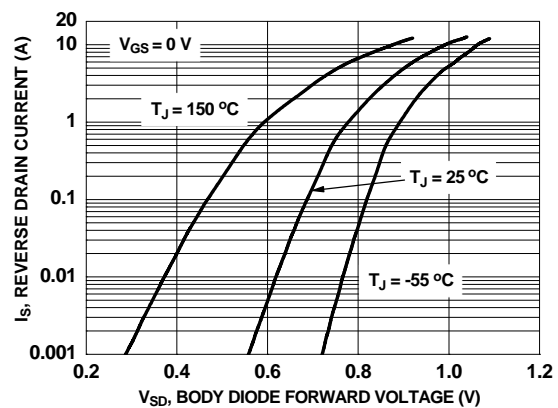


Figure 6. Source to Drain Diode Forward Voltage vs Source Current

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

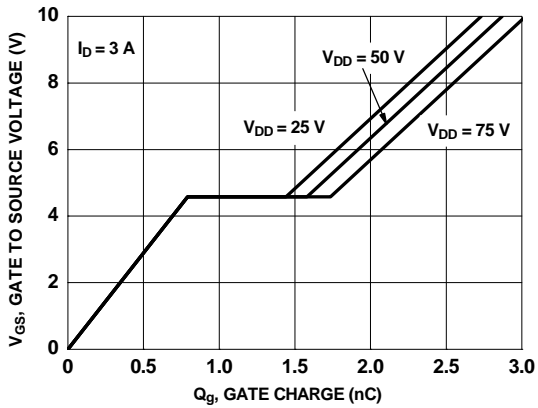


Figure 7. Gate Charge Characteristics

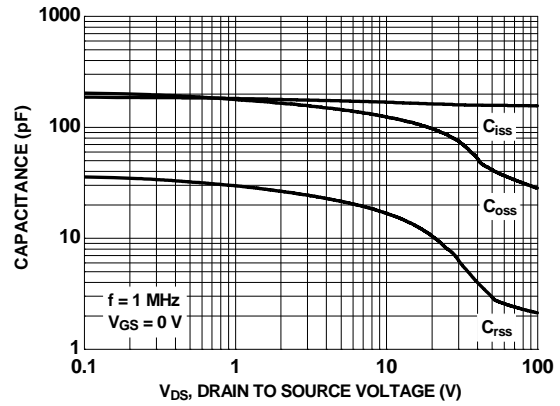


Figure 8. Capacitance vs Drain to Source Voltage

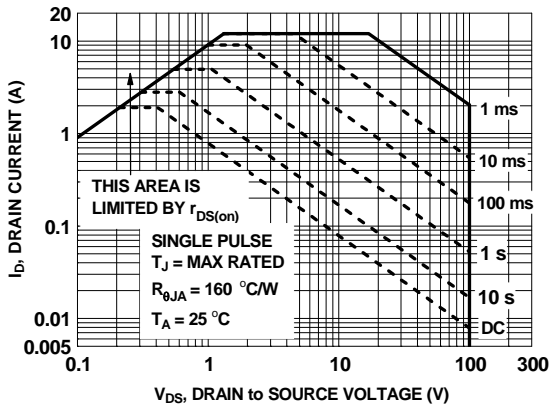


Figure 9. Forward Bias Safe Operating Area

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

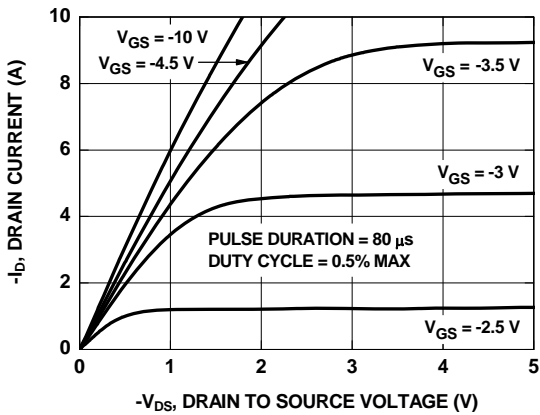


Figure 10. On-Region Characteristics

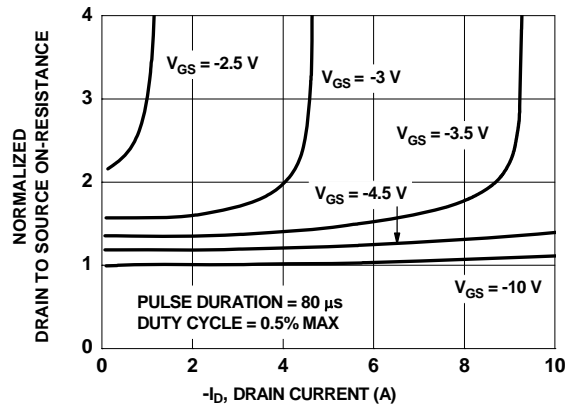


Figure 11. Normalized on-Resistance vs Drain Current and Gate Voltage

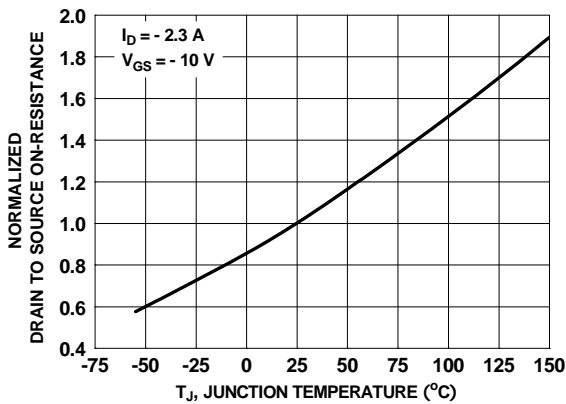


Figure 12. Normalized On-Resistance vs Junction Temperature

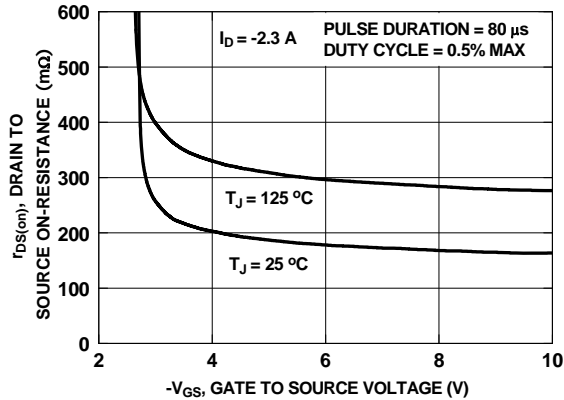


Figure 13. On-Resistance vs Gate to Source Voltage

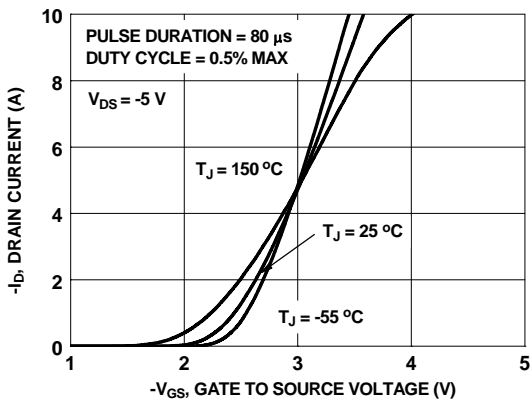


Figure 14. Transfer Characteristics

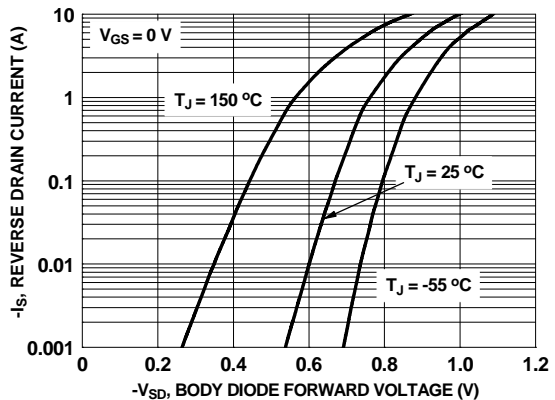


Figure 15. Source to Drain Diode Forward Voltage vs Source Current

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

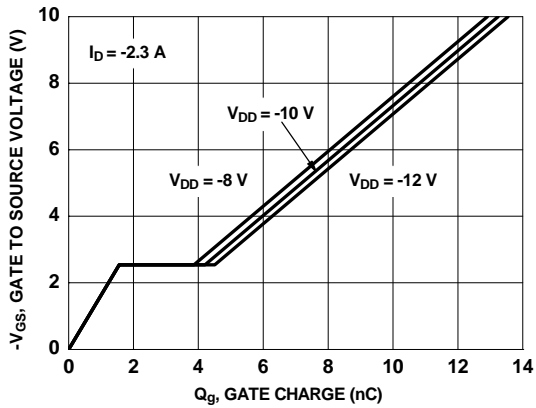


Figure 16. Gate Charge Characteristics

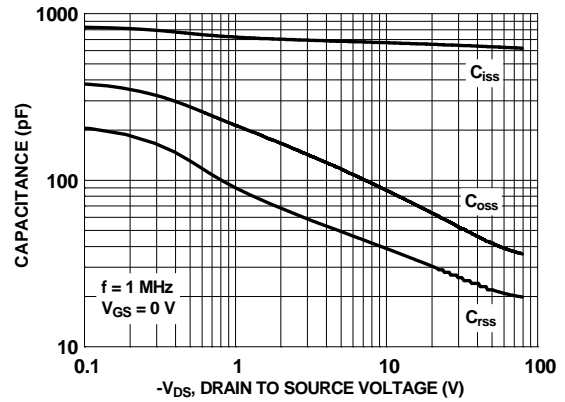


Figure 17. Capacitance vs Drain to Source Voltage

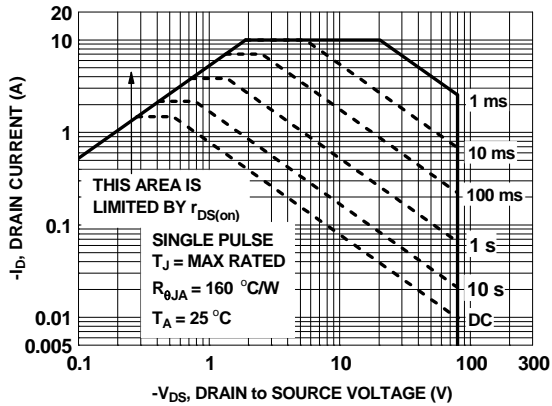


Figure 18. Forward Bias Safe Operating Area

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

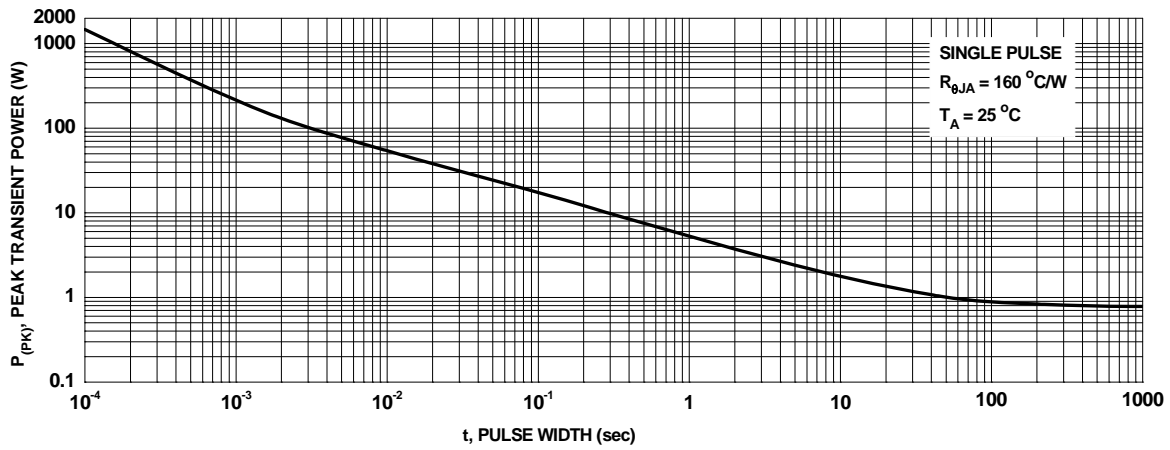


Figure 19. Single Pulse Maximum Power Dissipation

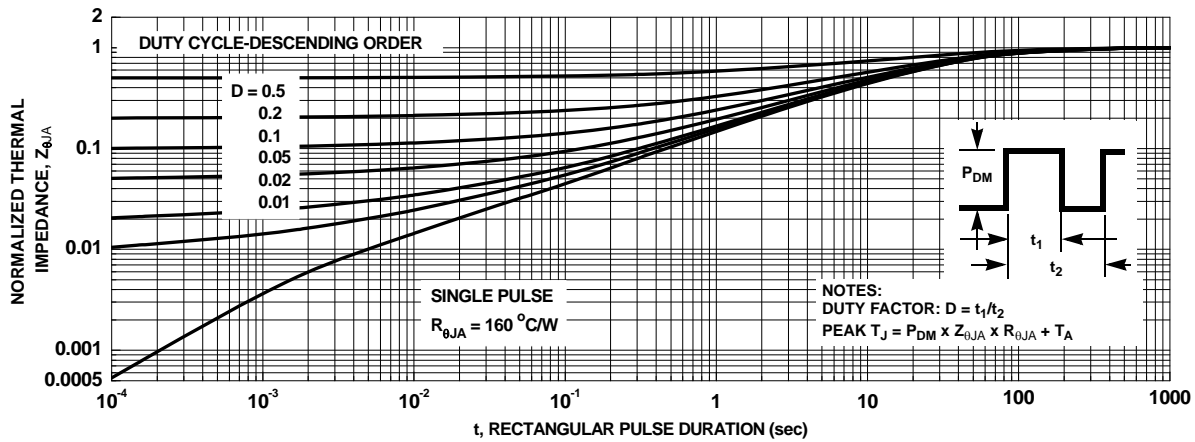




Figure 20. Junction-to-Ambient Transient Thermal Response Curve



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.

- | | | |
|---|---|---|
| 2Cool™ | FPS™ | The Power Franchise® |
| AccuPower™ | F-PFST™ | the power® |
| Auto-SPM™ | FRFET® | franchise® |
| AX-CAP™* | Global Power ResourceSM | TinyBoost™ |
| BitSiC® | GreenBridge™ | TinyBuck™ |
| Build it Now™ | Green FPS™ | TinyCalc™ |
| CorePLUS™ | Green FPS™ e-Series™ | TinyLogic® |
| CorePOWER™ | Gmax™ | TINYOPTO™ |
| CROSSVOLT™ | GTO™ | TinyPower™ |
| CTL™ | IntelliMAX™ | TinyPWM™ |
| Current Transfer Logic™ | ISOPLANAR™ | TinyWire™ |
| DEUXPEED® | Marking Small Speakers Sound Louder and Better™ | TranSiC® |
| Dual Cool™ | MegaBuck™ | TriFault Detect™ |
| EcoSPARK® | MICROCOUPLER™ | SmartMax™ |
| EfficientMax™ | MicroFET™ | SMART START™ |
| ESBC™ | MicroPak™ | Solutions for Your Success™ |
|  | MicroPak2™ | SPM® |
| Fairchild® | MillerDrive™ | STEALTH™ |
| Fairchild Semiconductor® | MotionMax™ | SuperFET® |
| FACT Quiet Series™ | Motion-SPM™ | SuperSOT™-3 |
| FACT® | mWSaver™ | SuperSOT™-6 |
| FAST® | OptoHiT™ | SuperSOT™-8 |
| FastvCore™ | OPTOLOGIC® | SupreMOS® |
| FETBench™ | OPTOPLANAR® | SyncFET™ |
| FlashWriter® * | | Sync-Lock™ |
| | |  |
| | | Saving our world, 1mW/W/kW at a time™ |
| | | SignalWise™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | SyncFET™ |
| | | Sync-Lock™ |
| | | TranSiC® |
| | | TriFault Detect™ |
| | | SmartMax™ |
| | | SMART START™ |
| | | Solutions for Your Success™ |
| | | SPM® |
| | | STEALTH™ |
| | | SuperFET® |
| | | SuperSOT™-3 |
| | | SuperSOT™-6 |
| | | SuperSOT™-8 |
| | | SupreMOS® |
| | | |

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