

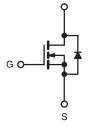


D Series	Power	MOSFET
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PRODUCT SUMMARY				
V _{DS} (V) at T _J max.	450			
R _{DS(on)} max. at 25 °C (Ω)	V _{GS} = 10 V 0.6			
Q _g max. (nC)	30			
Q _{gs} (nC)	4			
Q _{gd} (nC)	7			
Configuration	Single			

TO-220AB





N-Channel MOSFET

D

FEATURES

- Optimal Design
 - Low Area Specific On-Resistance
 - Low Input Capacitance (C_{iss})
 - Reduced Capacitive Switching Losses
 - High Body Diode Ruggedness
 - Avalanche Energy Rated (UIS)
- Optimal Efficiency and Operation
 - Low Cost
 - Simple Gate Drive Circuitry
 - Low Figure-of-Merit (FOM): Ron x Qg
 - Fast Switching
- Material categorization: For definitions of compliance please see <u>www.vishay.com/doc?99912</u>

Note

Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

APPLICATIONS

- Consumer Electronics
 - Displays (LCD or Plasma TV)
- Server and Telecom Power Supplies
- SMPS Industrial
 - Welding

 - Induction Heating
 - Motor Drives
- Battery Chargers

ORDERING INFORMATION	
Package	TO-220AB
Lead (Pb)-free	IRF740BPbF

ABSOLUTE MAXIMUM RATINGS (T _C	= 25 °C, unless otherwis	se noted)			
PARAMETER	SYMBOL	LIMIT	UNIT		
Drain-Source Voltage	V _{DS}	400			
Gate-Source Voltage	V _{GS}	± 30	V		
Gate-Source Voltage AC (f > 1 Hz)		30			
Continuous Drain Current (T _J = 150 °C)	V_{GS} at 10 V $T_C = 25 °C$	- I _D	10		
	V_{GS} at 10 V $T_C = 100 \text{ °C}$		6	A	
Pulsed Drain Current ^a	I _{DM}	23			
Linear Derating Factor		1.2	W/°C		
Single Pulse Avalanche Energy ^b	E _{AS}	194	mJ		
Maximum Power Dissipation	PD	147	W		
Operating Junction and Storage Temperature Rang	T _J , T _{stg}	- 55 to + 150	°C		
Drain-Source Voltage Slope	T _J = 125 °C	a\\//a+	24	V/ns	
Reverse Diode dV/dt ^d		dV/dt	0.6	v/115	
Soldering Recommendations (Peak Temperature)	for 10 s		300 ^c	°C	

Notes

a. Repetitive rating; pulse width limited by maximum junction temperature.

b. V_{DD} = 50 V, starting T_J = 25 °C, L = 2.3 mH, R_g = 25 Ω , I_{AS} = 13 A.

c. 1.6 mm from case.

d. $I_{SD} \leq I_D,$ starting T_J = 25 °C.

S12-1375-Rev. A, 18-Jun-12

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Document Number: 91519





Static Void State	THERMAL RESISTANCE RATI	NGS							
Maximum Junction-to-Case (Drain) Rhuc - 0.85 "CW SPECIFICATIONS (T _J = 25 °C, unless otherwise noted) PARAMETER SYMBOL TEST CONDITIONS Min. TYP. MAX. UN Static Drain-Source Breakdown Voltage V_{OS} $V_{GS} = 0$ V, $I_D = 250 \mu A$ 400 - - V Gate-Source Threshold Voltage (N) $V_{OS} = V_{OS}$ $V_{OS} = 0 V$, $I_D = 250 \mu A$ 3 - 5 V Gate-Source Threshold Voltage (N) $V_{OS} = V_{OS}$ $V_{OS} = 0 V$ - + 100 n/ Zero Gate Voltage Drain Current I_{OS} $V_{OS} = 320$ V, $V_{OS} = 0$ V, $V_{OS} = 0$ - - 10 µ/ Drain-Source On-State Resistance $P_{OS(m)}$ $V_{OS} = 100$ V, $V_{OS} = 100$ V, $I_D = 5$ A - 0.5 0.6 0. Output Capacitance C_{Oms} $V_{OS} = 0$ V, $V_{OS} = 0$ V to 320 V - 84	PARAMETER	SYMBOL	TYP.		MAX.		UNIT		
Maximum Junction-to-Case (Drain) R_{hulc} - 0.85 SPECIFICATIONS (T _J = 25 °C, unless otherwise noted) TEST CONDITIONS Min. TYP. MAX. UN Static Test conditions Min. TYP. MAX. UN Static Test conditions Min. TYP. MAX. UN Static Static Static Static Static Static Case Source Encender Coefficient $\Delta V_{0S} Temperature Coefficient \Delta V_{0S} Temper$	Maximum Junction-to-Ambient	R _{thJA}	- 62						
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Maximum Junction-to-Case (Drain)	R _{thJC}	- 0.85			- °C/W			
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$									
Static VGS = 0 V, ID = 250 µA 400 - - V Drain-Source Breakdown Voltage V_{DS} Reference to 25 °C, ID = 250 µA - 0.53 - V/V Gate-Source Threshold Voltage (N) $V_{OS}(h)$ $V_{DS} = V_{GS}, ID = 250 µA 3 - 5 V/V Gate-Source Leakage IGSS V_{OS} = 30 V - - \pm 100 h/V Zero Gate Voltage Drain Current IDSS V_{OS} = 320 V, V_{OS} = 0 V - - 10 \mu/V Drain-Source On-State Resistance R_{DS(n)} V_{OS} = 50 V, I_D = 5 A - 2.7 - S Dynamic Input Capacitance C_{oss} V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, I_D = 5 A - 2.7 - S Output Capacitance C_{oss} V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, I_D = 5 A - 2.7 - S Effective output capacitance, energy C_{o(er)} V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, V_{OS} = 0 V, I_D = 5 A, V_{DS} = 320 V - 44 - - 7 -$			1				I		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	PARAMETER	SYMBOL	TES	T CONDIT	IONS	MIN.	TYP.	MAX.	UNIT
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Static								
Gate-Source Threshold Voltage (N) V SS(th) V DS = VGS, ID = 250 μ A 3 - 5 V Gate-Source Leakage I GSS V DS = 400 V, VGS = 0 V - - 1 μ Zero Gate Voltage Drain Current I DSS V DS = 400 V, VGS = 0 V - - 10 μ Drain-Source On-State Resistance R DS(on) V DS = 320 V, VGS = 0 V, T_U = 125 °C - 10 μ Drain-Source On-State Resistance R DS(on) V DS = 50 V, VGS = 0 V, T_U = 125 °C - 10 μ Input Capacitance Creas V DS = 50 V, ID = 5 A - 2.7 - S Output Capacitance C Gas V DS = 100 V, T_U = 125 °C - - 59 - Reverse Transfer Capacitance C Gas V DS = 100 V, T_S = 100 V, T_S = 100 V, T_S = 0 V to 320 V - 84 - Total Gate Charge Q Gg Q Gas V C S = 10 V, T_S = 320 V - 84 - Gate-Drain Charge Q Gg Q Gas - 118 36 - 12 <td>Drain-Source Breakdown Voltage</td> <td>V_{DS}</td> <td>V_{GS} =</td> <td>= 0 V, I_D =</td> <td>250 µA</td> <td>400</td> <td></td> <td>-</td> <td>V</td>	Drain-Source Breakdown Voltage	V _{DS}	V _{GS} =	= 0 V, I _D =	250 µA	400		-	V
	V _{DS} Temperature Coefficient	$\Delta V_{DS}/T_{J}$	Reference	to 25 °C,	l _D = 250 μA	-	0.53	-	V/°C
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Gate-Source Threshold Voltage (N)	V _{GS(th)}	V _{DS} =	= V_{GS} , I_D =	250 µA	3	-	5	V
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Gate-Source Leakage	I _{GSS}		$V_{GS} = \pm 30$	V	-	-	± 100	nA
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Zava Cata Valtaga Drain Current		V _{DS} = 400 V, V _{GS} = 0 V		-	-	1		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Zero Gale voltage Drain Current	DSS	V _{DS} = 320 V	/, V _{GS} = 0 ^v	√, T _J = 125 °C	-	-	10	μA
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Drain-Source On-State Resistance	R _{DS(on)}	$V_{GS} = 10 V$		I _D = 5 A	-	0.5	0.6	Ω
DynamicInput Capacitance C_{liss} $V_{GS} = 0 V$, $V_{DS} = 100 V$, $f = 1 MHz$ $ 526$ $-$ Output Capacitance C_{oss} $V_{OS} = 100 V$, $f = 1 MHz$ $ 59$ $-$ Effective output capacitance, energy related ^a $C_{o(tr)}$ $V_{GS} = 0 V$, $V_{DS} = 0 V to 320 V$ $ 666$ $-$ Effective output capacitance, time related ^a $C_{o(tr)}$ $V_{GS} = 0 V$, $V_{DS} = 0 V to 320 V$ $ 666$ $-$ Total Gate Charge Q_g Q_{gs} $V_{GS} = 10 V$ $I_D = 5 A, V_{DS} = 320 V$ $ 4$ $-$ Gate-Drain Charge Q_{gd} Q_{gd} $V_{GS} = 10 V$ $I_D = 5 A, V_{DS} = 320 V$ $ 4$ $-$ Turn-On Delay Time $t_{d(on)}$ t_r $V_{DD} = 400 V, I_D = 10 A, V_{GS} = 10 V, R_g = 9.1 \Omega$ $ 118$ 36 Fail Time t_r $V_{DD} = 400 V, I_D = 10 A, V_{GS} = 10 V, R_g = 9.1 \Omega$ $ 14$ 28 Gate Input Resistance R_g $f = 1 MHz$, open drain $ 1.8$ $ \Omega$ Pulsed Diode Forward Current I_S MOSFET symbol showing the integral reverse $p - n$ junction diode $ 10$ A Dide Forward Voltage V_{SD} $T_J = 25 °C, I_S = 5 A, V_{GS} = 0 V$ $ 1.2$ V Reverse Recovery Time t_{rr} T_{rr} $T_{J} = 25 °C, I_S = 5 A, V_{GS} = 0 V$ $ 1.2$ V Reverse Recovery Charge Q_{rr} T_{rr}	Forward Transconductance	9 _{fs}	V _{DS}	s = 50 V, I _D	= 5 A	-	2.7	-	S
Output CapacitanceCoss $V_{OS} = 100 \text{ V},$ f = 1 MHz $ 59$ $-$ Reverse Transfer Capacitance C_{rss} $V_{OS} = 100 \text{ V},$ f = 1 MHz $ 59$ $-$ Effective output capacitance, energy related ⁰ $C_{o(er)}$ $V_{OS} = 0 \text{ V},$ $V_{DS} = 0 \text{ V} to 320 \text{ V}$ $ 666$ $-$ Effective output capacitance, time related ⁰ $C_{o(tr)}$ $V_{OS} = 0 \text{ V},$ $V_{DS} = 0 \text{ V} to 320 \text{ V}$ $ 666$ $-$ Total Gate Charge Q_g Q_g $V_{GS} = 10 \text{ V}$ $I_D = 5 \text{ A}, V_{DS} = 320 \text{ V}$ $ 44$ $-$ Gate-Drain Charge Q_{gd} $V_{GS} = 10 \text{ V}$ $I_D = 5 \text{ A}, V_{DS} = 320 \text{ V}$ $ 44$ $ nd$ Gate-Drain Charge Q_{gd} $V_{GS} = 10 \text{ V}$ $I_D = 5 \text{ A}, V_{DS} = 320 \text{ V}$ $ 18$ 36 $-$ Turn-On Delay Time $t_{d(on)}$ T_r $ 10 \text{ A},$ $V_{GS} = 10 \text{ V}, R_g = 9.1 \Omega$ $ 144$ 28 Gate Input Resistance R_g $f = 1 \text{ MHz}, open drain$ $ 1.8$ $ \Omega$ Drain-Source Body Diode Characteristics $MOSFET$ symbol showing the integral reverse $p - n$ junction diode $ 10$ $-$ Pulsed Diode Forward Current I_S $MOSFET$ symbol showing the integral reverse $p - n$ junction diode $ 10$ $-$ Dide Forward Voltage V_{SD} $T_J = 25 \text{ °C}, I_F = I_S = 5 \text{ A},$ $d/dt = 100 A/\mu S, V_R = 25 \text{ V}$ $-$ <	Dynamic					•	•		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Input Capacitance	C _{iss}	V _{DS} = 100 V,		-	526	-	pF	
Reverse Transfer Capacitance C_{rss} $f = 1 \text{ MHz}$ $ 9$ $-$ Effective output capacitance, energy related ^a $C_{o(er)}$ $V_{GS} = 0 \text{ V},$ $V_{DS} = 0 \text{ V to } 320 \text{ V}$ $ 666$ $-$ Effective output capacitance, time related ^b $C_{o(tr)}$ $V_{GS} = 0 \text{ V},$ $V_{DS} = 0 \text{ V to } 320 \text{ V}$ $ 666$ $-$ Total Gate Charge Q_{g} $Gate-Drain ChargeQ_{gg}Q_{gd}V_{GS} = 10 \text{ V}I_D = 5 \text{ A}, V_{DS} = 320 \text{ V} 44-Gate-Drain ChargeQ_{gd}Gate-Drain ChargeQ_{gd}V_{GS} = 10 \text{ V}I_D = 5 \text{ A}, V_{DS} = 320 \text{ V} 1424Turn-On Delay Timet_{d(ori)}V_{GS} = 10 \text{ V}, \text{ I}_D = 10 \text{ A},V_{GS} = 10 \text{ V}, \text{ R}_g = 9.1 \Omega 1836Fall Timet_rT_rT_r 1428Gate Input ResistanceR_gf = 1 \text{ MHz}, open drain 1.8-Drain-Source Body Diode CharacteristicsNOSFET symbolshowing theintegral reversep - n junction diode 10-Pulsed Diode Forward CurrentI_{SM}MOSFET symbolshowing theintegral reversep - n junction diode 1.0-Dide Forward VoltageV_{SD}T_J = 25 ^{\circ}C, I_S = 5 A, V_{GS} = 0 \text{ V} 1.2VReverse Recovery Timet_{rr}T_J = 25 ^{\circ}C, I_S = 25 \text{ A},dI/ct = 100 A/Ju, V_R = 25 \text{ V}-$	Output Capacitance				-	59	-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Reverse Transfer Capacitance				-	9	-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Effective output capacitance, energy	C _{o(er)}			-	66	-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		C _{o(tr)}			-	84	-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Total Gate Charge	Qq				-	15	30	nC
Gate-Drain Charge Q_{gd} -7-Turn-On Delay Time $t_{d(on)}$ Rise Time t_r Turn-Off Delay Time t_r Turn-Off Delay Time $t_{d(off)}$ Fall Time t_f Gate Input Resistance R_g Gate Input Resistance R_g Tarin-Source Body Diode CharacteristicsContinuous Source-Drain Diode Current I_S Pulsed Diode Forward Current I_S Diode Forward Voltage V_{SD} Turn-Off Delay Time t_r r_f $T_J = 25 ^\circ C$, $I_F = I_S = 5 A$, $dI/dt = 100 A/\mus, V_R = 25 V$ $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$, $r_J = 25 ^\circ C$ $r_F = I_S = 5 A$, $r_F = 15 = 5 A$,	Gate-Source Charge		V _{GS} = 10 V	I _D = 5	A, V _{DS} = 320 V	-	4	-	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Gate-Drain Charge	9				-	7	-	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Turn-On Delay Time					-	12	24	
Turn-Off Delay Time $t_{d(off)}$ $V_{DD} = 400 \text{ V}, \text{ ID} = 10 \text{ A}, \text{ V}_{GS} = 10 \text{ V}, \text{ R}_{g} = 9.1 \Omega$ -1836Fall Time t_{f} r_{f} -1428Gate Input Resistance R_{g} $f = 1 \text{ MHz}, \text{ open drain}$ -1.8- Ω Drain-Source Body Diode CharacteristicsContinuous Source-Drain Diode Current I_{S} MOSFET symbol showing the integral reverse $p - n$ junction diode-10APulsed Diode Forward Current I_{SM} $T_{J} = 25 \text{ °C}, I_{S} = 5 \text{ A}, V_{GS} = 0 \text{ V}$ 1.2VReverse Recovery Time t_{rr} $T_{J} = 25 \text{ °C}, I_{F} = I_{S} = 5 \text{ A}, dI/dt = 100 \text{ A/µs}, V_{R} = 25 \text{ V}$ -1.6- μ	Rise Time		N .	400 \/ 1	- 10 4	-	18	36	1
Fall Timetf-1428Gate Input ResistanceRgf = 1 MHz, open drain-1.8- Ω Drain-Source Body Diode CharacteristicsContinuous Source-Drain Diode CurrentIsMOSFET symbol showing the integral reverse p - n junction diode-10-10Pulsed Diode Forward CurrentIsMOSFET symbol showing the integral reverse p - n junction diode10-Diode Forward VoltageV_SDT_J = 25 °C, I_S = 5 A, V_{GS} = 0 V1.2VReverse Recovery TimetrrT_J = 25 °C, I_F = I_S = 5 A, dl/dt = 100 A/µs, V_B = 25 V-1.6- μ	Turn-Off Delay Time					-	18	36	ns
Gate Input Resistance R_g $f = 1 \text{ MHz}$, open drain-1.8- Ω Drain-Source Body Diode CharacteristicsContinuous Source-Drain Diode Current I_S MOSFET symbol showing the integral reverse $p - n$ junction diode10APulsed Diode Forward Current I_{SM} I_{SD} $T_J = 25 \ ^{\circ}C$, $I_S = 5 \text{ A}$, $V_{GS} = 0 \text{ V}$ 40ADiode Forward Voltage V_{SD} $T_J = 25 \ ^{\circ}C$, $I_S = 5 \text{ A}$, $V_{GS} = 0 \text{ V}$ 1.2VReverse Recovery Time t_{rr} $T_J = 25 \ ^{\circ}C$, $I_F = I_S = 5 \text{ A}$, dl/dt = 100 A/µs, $V_R = 25 \text{ V}$ -1.6- μ	Fall Time				-	14	28	1	
Drain-Source Body Diode CharacteristicsContinuous Source-Drain Diode CurrentIsMOSFET symbol showing the integral reverse $p - n$ junction diode10APulsed Diode Forward CurrentIsMIsMTJ = 25 °C, IS = 5 A, VGS = 0 V40Diode Forward VoltageVSDTJ = 25 °C, IS = 5 A, VGS = 0 V1.2VReverse Recovery TimetrrTJ = 25 °C, IF = IS = 5 A, dl/dt = 100 A/µS, VR = 25 V1.6-µC	Gate Input Resistance		f = 1 MHz, open drain		-	1.8	-	Ω	
Continuous Source-Drain Diode CurrentIsMOSFET symbol showing the integral reverse p - n junction diode-10APulsed Diode Forward CurrentIsmIsm $r_{J} = 25 °C$, Is = 5 A, VGS = 0 V40ADiode Forward VoltageVsDTJ = 25 °C, Is = 5 A, VGS = 0 V1.2VReverse Recovery TimetrrTJ = 25 °C, Is = 5 A, dl/dt = 100 A/µs, VB = 25 V1.6-µc	•	, ÷							
Pulsed Diode Forward CurrentIsmIntegral reverse p - n junction diode40Diode Forward Voltage V_{SD} $T_J = 25 \ ^{\circ}C$, $I_S = 5 \ A$, $V_{GS} = 0 \ V$ 1.2VReverse Recovery Time t_{rr} $T_J = 25 \ ^{\circ}C$, $I_F = I_S = 5 \ A$, dl/dt = 100 A/µs, $V_R = 25 \ V$ 1.6-µc	•		showing the integral reverse		-	-	10	A	
Reverse Recovery Time t_{rr} $T_J = 25 \degree C, I_F = I_S = 5 \ A,$ -230-nsReverse Recovery Charge Q_{rr} $dl/dt = 100 \ A/\mu s, V_B = 25 \ V$ -1.6- μC	Pulsed Diode Forward Current	I _{SM}			-	-	40		
Reverse Recovery Time t_{rr} $T_J = 25 \degree C, I_F = I_S = 5 \ A,$ -230-nsReverse Recovery Charge Q_{rr} $dl/dt = 100 \ A/\mu s, V_B = 25 \ V$ -1.6- μC	Diode Forward Voltage	V _{SD}	$T_{1} = 25 \text{ °C}, I_{S} = 5 \text{ A}, V_{GS} = 0 \text{ V}$		-	-	1.2	V	
Reverse Recovery Charge Q_{rr} $T_J = 25 \ ^{\circ}C$, $I_F = I_S = 5 \ A$, $dI/dt = 100 \ A/\mu s$, $V_R = 25 \ V$ -1.6- μC	· · · · · · · · · · · · · · · · · · ·		T _J = 25 °C, I _F = I _S = 5 A,		-	230	-	ns	
dl/dt = 100 A/µs, v _R = 25 v					-		-	μC	
	, ,				-		-	A	

Notes

a. $C_{oss(er)}$ is a fixed capacitance that gives the same energy as C_{oss} while V_{DS} is rising from 0 % to 80 % V_{DS} .

b. $C_{oss(tr)}$ is a fixed capacitance that gives the same charging time as C_{oss} while V_{DS} is rising from 0 % to 80 % V_{DS} .

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TYPICAL CHARACTERISTICS (25 °C, unless otherwise noted)

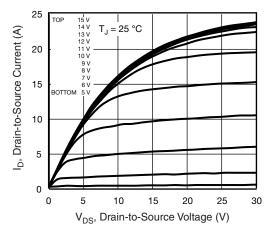


Fig. 1 - Typical Output Characteristics

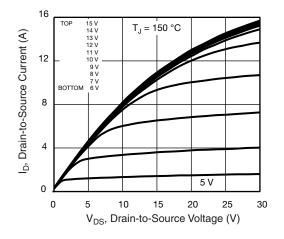


Fig. 2 - Typical Output Characteristics

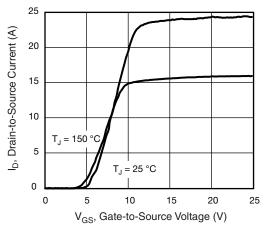


Fig. 3 - Typical Transfer Characteristics

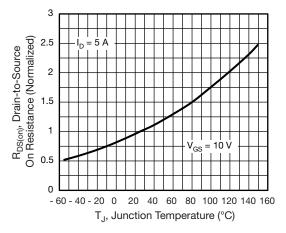


Fig. 4 - Normalized On-Resistance vs. Temperature

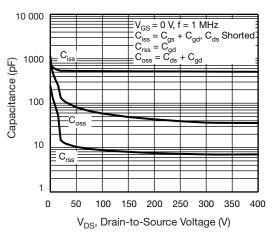


Fig. 5 - Typical Capacitance vs. Drain-to-Source Voltage

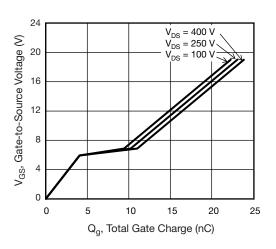


Fig. 6 - Typical Gate Charge vs. Gate-to-Source Voltage

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IRF740B

Vishay Siliconix

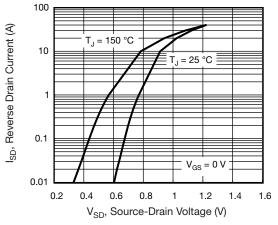
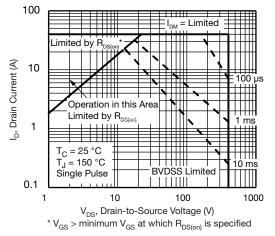


Fig. 7 - Typical Source-Drain Diode Forward Voltage





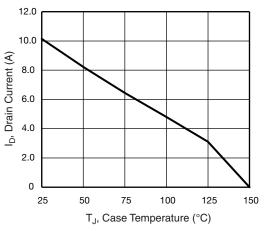


Fig. 9 - Maximum Drain Current vs. Case Temperature

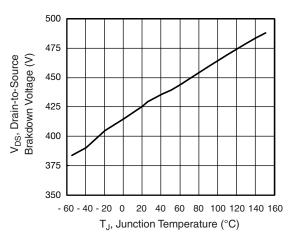
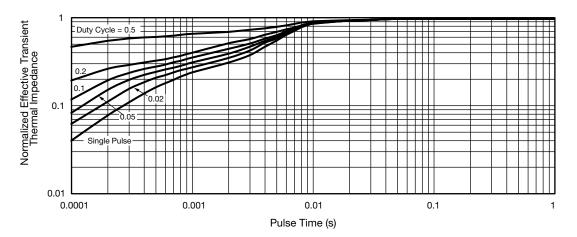


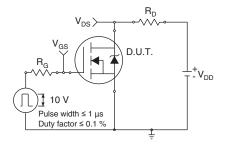
Fig. 10 - Temperature vs. Drain-to-Source Voltage





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Fig. 12 - Switching Time Test Circuit

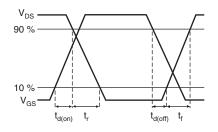


Fig. 13 - Switching Time Waveforms

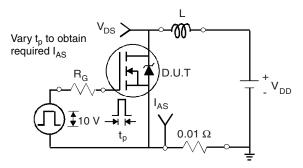


Fig. 14 - Unclamped Inductive Test Circuit

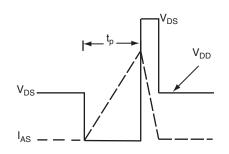


Fig. 15 - Unclamped Inductive Waveforms

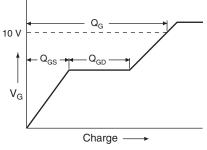


Fig. 16 - Basic Gate Charge Waveform

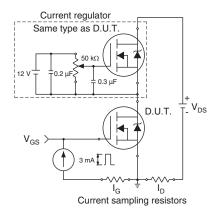


Fig. 17 - Gate Charge Test Circuit

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Peak Diode Recovery dV/dt Test Circuit

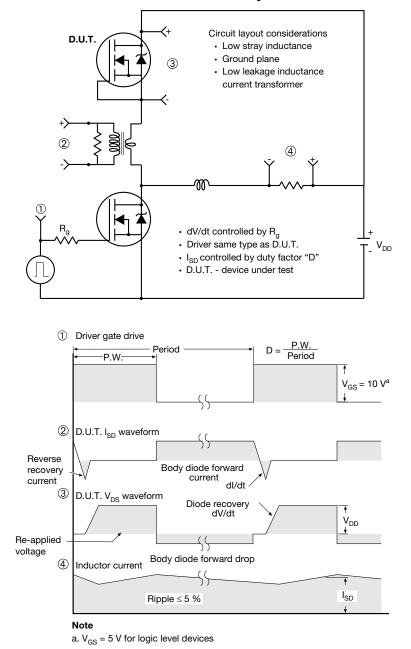


Fig. 18 - For N-Channel

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