



**● Electrical characteristics (Ta = 25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Gate-source leakage	$I_{GSS}$	-	-	±10	μA	$V_{GS}=\pm 20V, V_{DS}=0V$
Drain-source breakdown voltage	$V_{(BR)DSS}$	30	-	-	V	$I_D=1mA, V_{GS}=0V$
Zero gate voltage drain current	$I_{DSS}$	-	-	1	μA	$V_{DS}=30V, V_{GS}=0V$
Gate threshold voltage	$V_{GS(th)}$	1.0	-	2.5	V	$V_{DS}=10V, I_D=1mA$
Static drain-source on-state resistance	$R_{DS(on)}^*$	-	6.5	9.1	mΩ	$I_D=15A, V_{GS}=10V$
		-	9.0	12.6		$I_D=15A, V_{GS}=4.5V$
Forward transfer admittance	$ Y_{fs} ^*$	10	-	-	S	$I_D=15A, V_{DS}=10V$
Input capacitance	$C_{iss}$	-	831	-	pF	$V_{DS}=15V$
Output capacitance	$C_{oss}$	-	337	-	pF	$V_{GS}=0V$
Reverse transfer capacitance	$C_{rss}$	-	95	-	pF	$f=1MHz$
Turn-on delay time	$t_{d(on)}^*$	-	12	-	ns	$I_D=7.5A, V_{DD}=15V$
Rise time	$t_r^*$	-	38	-	ns	$V_{GS}=10V$
Turn-off delay time	$t_{d(off)}^*$	-	34	-	ns	$R_L=2.0\Omega$
Fall time	$t_f^*$	-	9	-	ns	$R_G=10\Omega$
Total gate charge	$Q_g^*$	-	15	-	nC	$I_D=15A, V_{DD}=15V$
Gate-source charge	$Q_{gs}^*$	-	2.6	-	nC	$V_{GS}=10V$
Gate-drain charge	$Q_{gd}^*$	-	3.0	-	nC	

\*Pulsed

**● Body diode characteristics (Source-Drain) (Ta = 25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward Voltage	$V_{SD}^*$	-	-	1.2	V	$I_S=2.5A, V_{GS}=0V$

\*Pulsed

●Electrical characteristic curves (Ta=25°C)

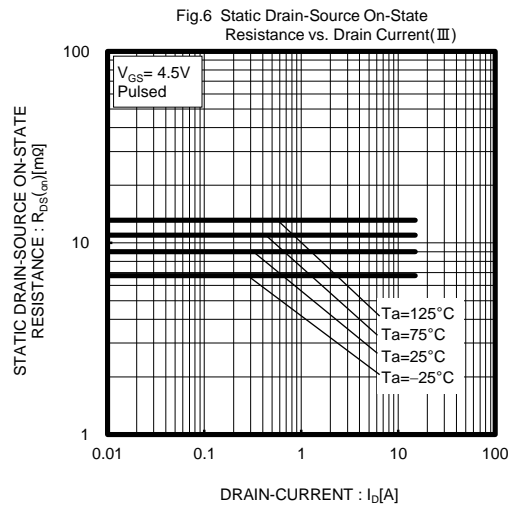
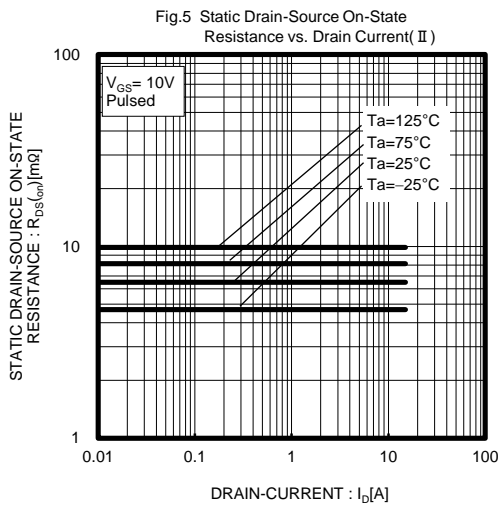
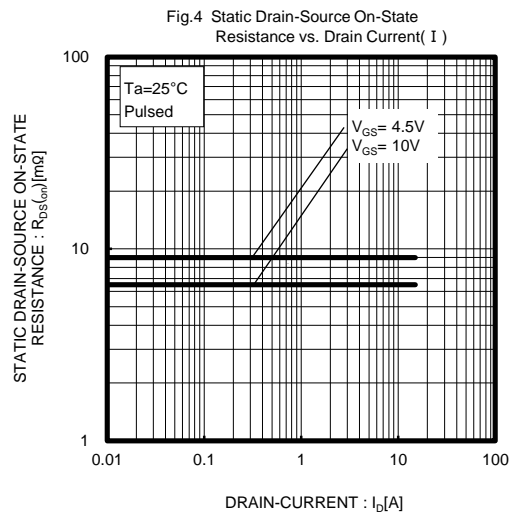
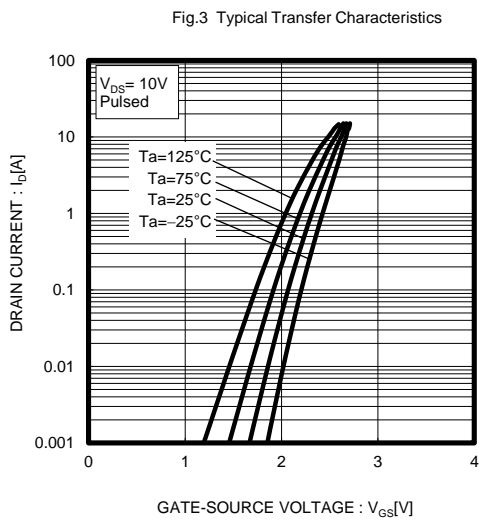
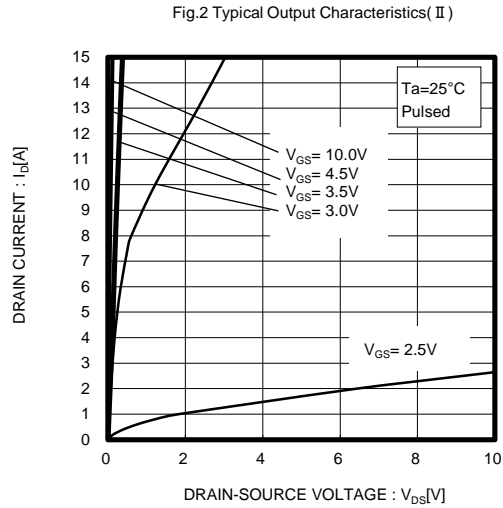
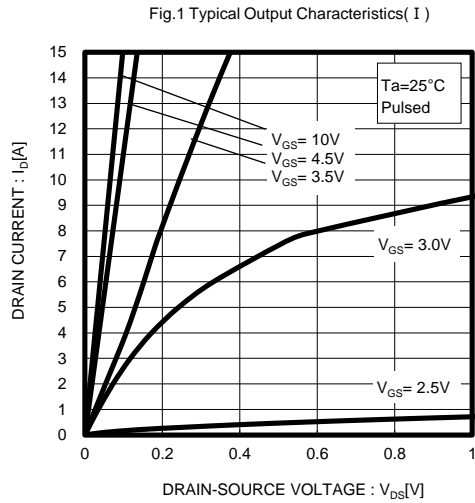


Fig.7 Forward Transfer Admittance vs. Drain Current

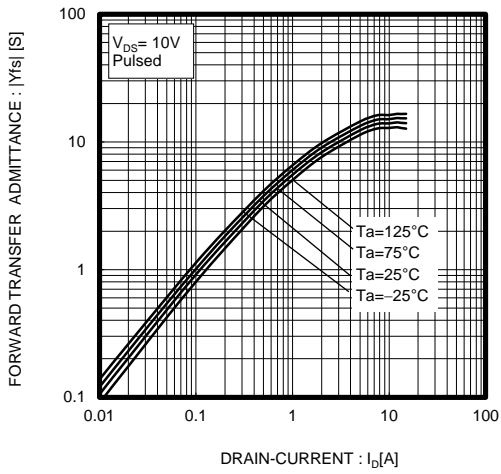


Fig.8 Reverse Drain Current vs. Source-Drain Voltage

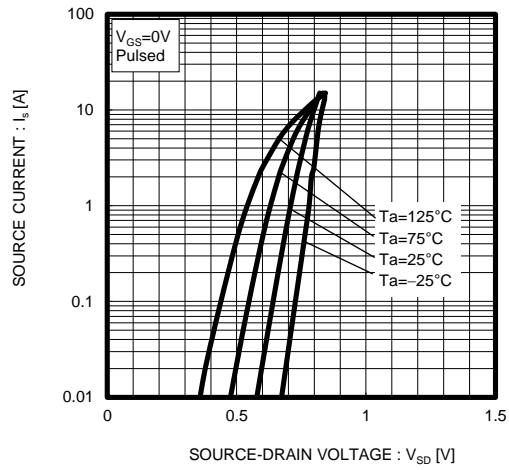


Fig.9 Static Drain-Source On-State Resistance vs. Gate Source Voltage

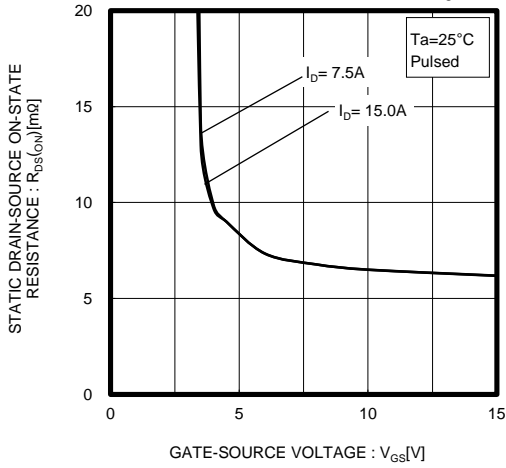


Fig.10 Switching Characteristics

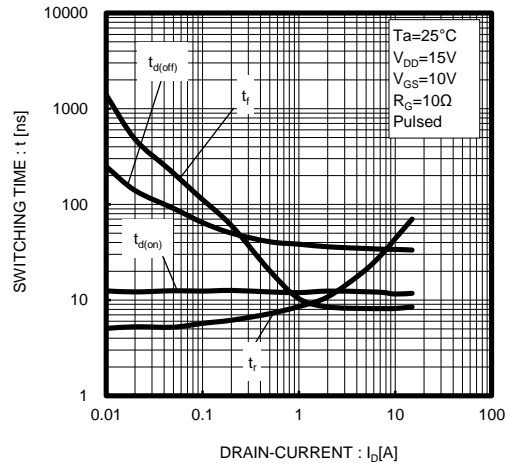


Fig.11 Dynamic Input Characteristics

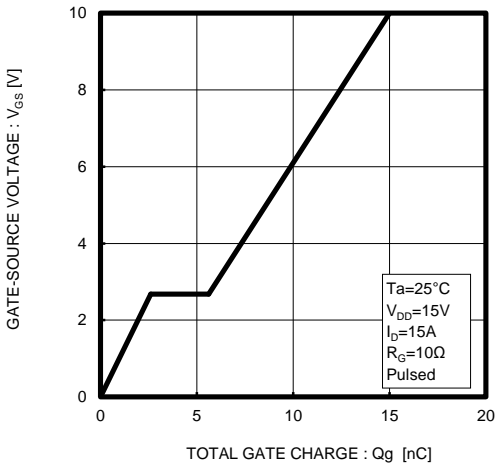


Fig.12 Typical Capacitance vs. Drain-Source Voltage

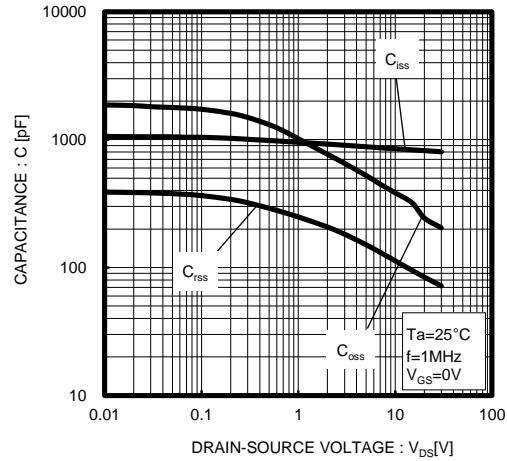


Fig.13 Maximum Safe Operating Area

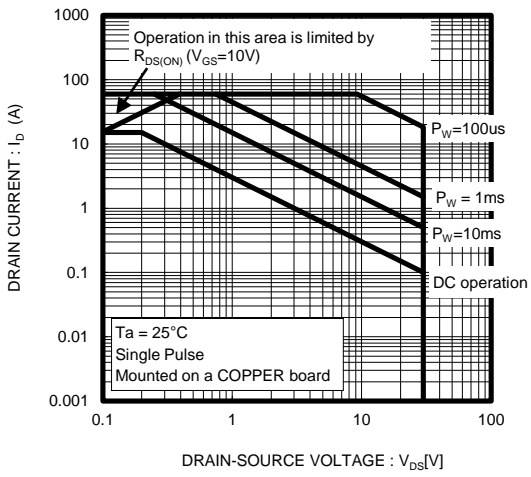
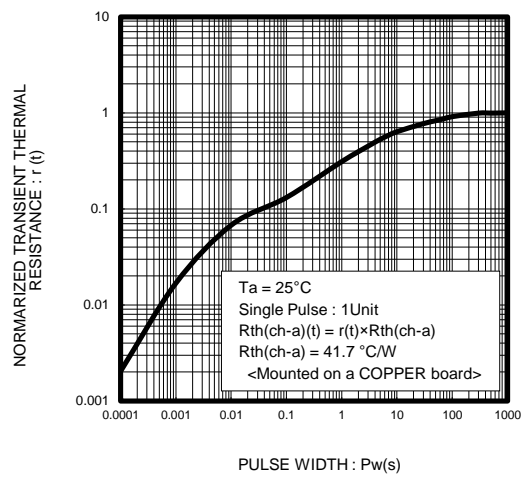


Fig.14 Normalized Transient Thermal Resistance vs. Pulse Width



● Measurement circuits

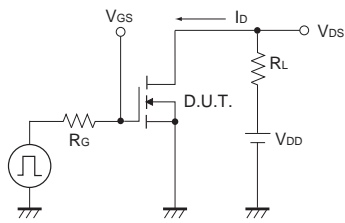


Fig.1-1 Switching Time Measurement Circuit

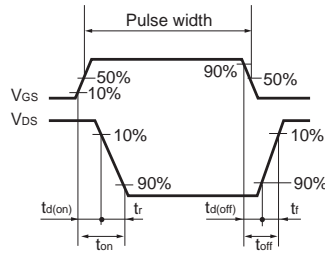


Fig.1-2 Switching Waveforms

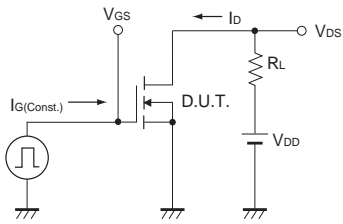


Fig.2-1 Gate Charge Measurement Circuit

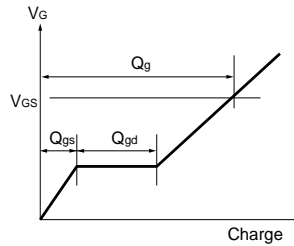


Fig.2-2 Gate Charge Waveform

● Notice

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