●**Electrical characteristics** (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Gate-source leakage	I_{GSS}	–	–	±10	μA	V_{GS}=±20V, V_{DS}=0V
Drain-source breakdown voltage	$V_{(BR)\,DSS}$	−45	–	–	V	I_D= −1mA, V_{GS}=0V
Zero gate voltage drain current	I_{DSS}	–	–	−1	μA	V_{DS}= −45V, 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	$R_{DS\,(on)}$*	–	19	27	mΩ	I_D= −7A, V_{GS}= −10V
		–	25	35	mΩ	I_D= −7A, V_{GS}= −4.5V
		–	28	39	mΩ	I_D= −7A, V_{GS}= −4.0V
Forward transfer admittance	$\|Y_{fs}\|$*	10.0	–	–	S	V_{DS}= −10V, I_D= −7A
Input capacitance	C_{iss}	–	4100	–	pF	V_{DS}= −10V
Output capacitance	C_{oss}	–	510	–	pF	V_{GS}=0V
Reverse transfer capacitance	C_{rss}	–	330	–	pF	f=1MHz
Turn-on delay time	$t_{d\,(on)}$*	–	31	–	ns	V_{DD}≒ −25V I_D= −3.5A V_{GS}= −10V R_L=−7Ω R_G=10Ω
Rise time	t_r*	–	35	–	ns	
Turn-off delay time	$t_{d\,(off)}$*	–	135	–	ns	
Fall time	t_f*	–	50	–	ns	
Total gate charge	Q_g*	–	34.0	47.6	nC	V_{DD}≒ −25V V_{GS}= −5V
Gate-source charge	Q_{gs}*	–	9.5	–	nC	I_D= −7A
Gate-drain charge	Q_{gd}*	–	12	–	nC	R_L=3.5Ω R_G=10Ω

*Pulsed

Body diode characteristics (Source-Drain)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{SD}*	–	–	−1.2	V	I_S= −7A, V_{GS}=0V

*Pulsed

●**Electrical characteristic curves**

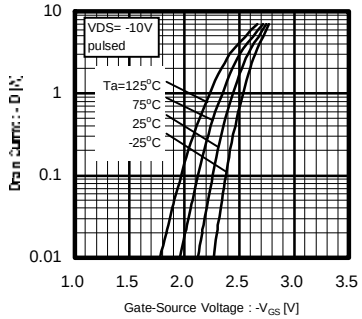

Fig.1 Typical Transfer Characteristics

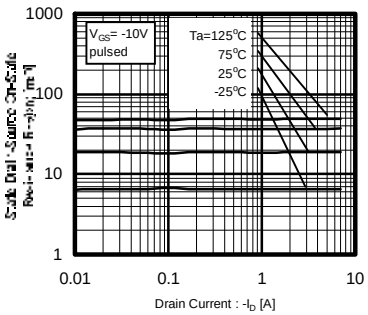

Fig.2 Static Drain-Source On-State Resistance vs. Drain Current (1)

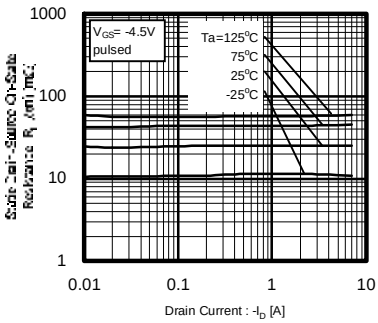

Fig.3 Static Drain-Source On-State Resistance vs. Drain Current (2)

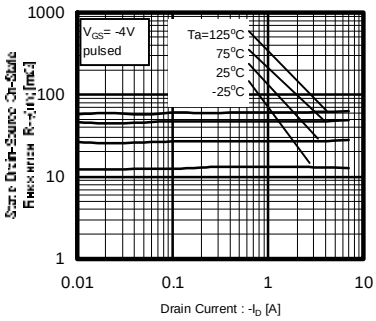

Fig.4 Static Drain-Source On-State Resistance vs. Drain Current (3)

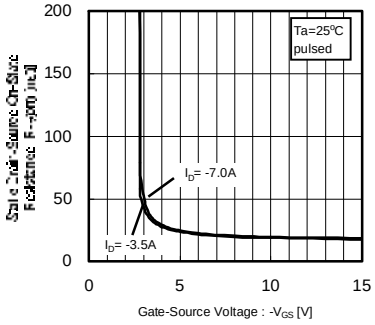

Fig.5 Static Drain-Source On-State Resistance vs. Gate-Source Voltage

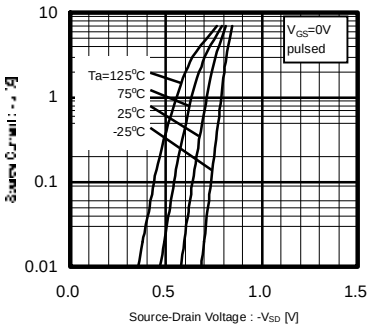

Fig.6 Source-Current vs. Source-Drain Voltage

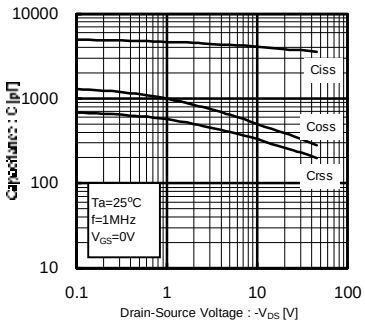

Fig.7 Typical capacitance vs. Source-Drain Voltage

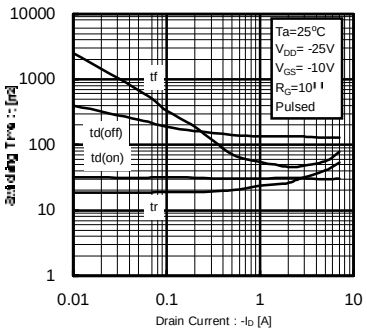

Fig.8 Switching Characteristics

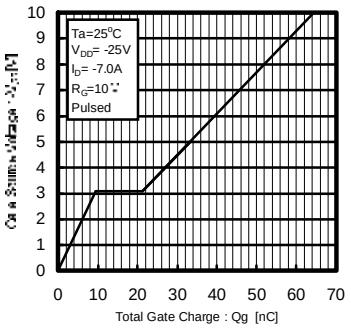

Fig.9 Dynamic Input Characteristics

●**Measurement circuits**

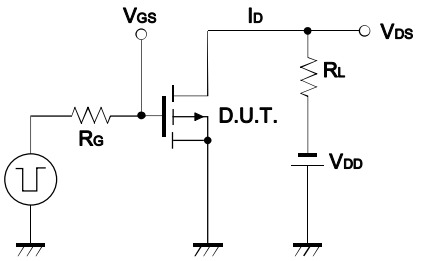

Fig.10 Switching Time Test Circuit

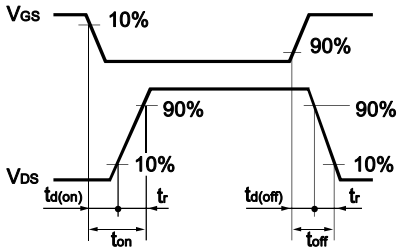

Fig.11 Switching Time Waveforms

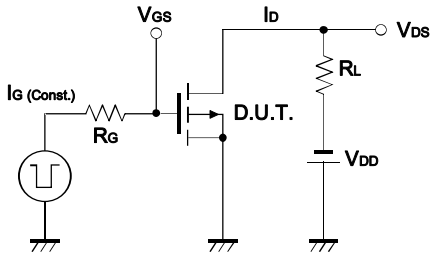

Fig.12 Gate Charge Test Circuit

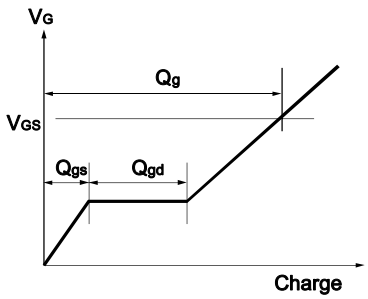

Fig.13 Gate Charge Waveform

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