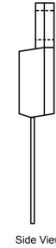
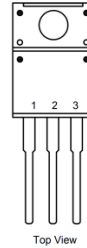
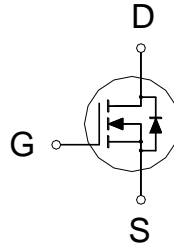




PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
600V	290mΩ	15A



- 1. GATE
- 2. DRAIN
- 3. SOURCE

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Drain-Source Voltage		V_{DS}	600	V
Gate-Source Voltage		V_{GS}	±30	V
Continuous Drain Current ²	$T_C = 25^\circ C$	I_D	15	A
	$T_C = 100^\circ C$		8.7	
Pulsed Drain Current ¹		I_{DM}	41	
Avalanche Current ³		I_{AS}	2.3	
Avalanche Energy ³		E_{AS}	198	mJ
Power Dissipation	$T_C = 25^\circ C$	P_D	32	W
	$T_C = 100^\circ C$		12.8	
Operating Junction & Storage Temperature Range		T_j, T_{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Case	$R_{\theta JC}$		3.9	°C / W
Junction-to-Ambient	$R_{\theta JA}$		62.5	

¹Pulse width limited by maximum junction temperature.

²Ensure that the channel temperature does not exceed 150°C.

³ $V_{DD} = 50V$, $L = 75mH$,starting $T_j = 25^\circ C$.

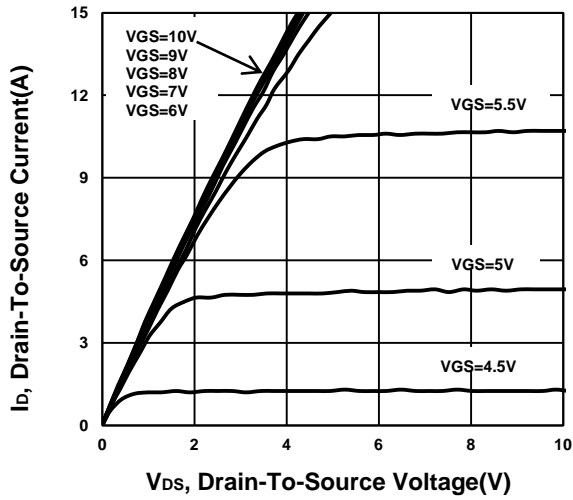
ELECTRICAL CHARACTERISTICS (T_J = 25 ° C, Unless Otherwise Noted)

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	600			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	2	3	4	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±30V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 600V, V _{GS} = 0V			1	μA
		V _{DS} = 480V, V _{GS} = 0V, T _J = 100 ° C			10	
Drain-Source On-State Resistance ¹	R _{DS(ON)}	V _{GS} = 10V, I _D = 7.5A		251	290	mΩ
Forward Transconductance ¹	g _{fs}	V _{DS} = 15V, I _D = 7.5A		12		S
DYNAMIC						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 100V, f = 250KHz		907		pF
Output Capacitance	C _{oss}			55		
Reverse Transfer Capacitance	C _{rss}			9.6		
Gate Resistance	R _g	V _{GS} = 0V, V _{DS} = 0V, f = 1MHz		7		Ω
Total Gate Charge ²	Q _g	V _{DS} = 480V, V _{GS} = 10V, I _D = 7.5A		25		nC
Gate-Source Charge ²	Q _{gs}			5.1		
Gate-Drain Charge ²	Q _{gd}			11		
Turn-On Delay Time ²	t _{d(on)}	V _{DD} = 300V, I _D ≅ 7.5A, V _{GS} = 10V, R _{GEN} = 25Ω		13		nS
Rise Time ²	t _r			35		
Turn-Off Delay Time ²	t _{d(off)}			99		
Fall Time ²	t _f			40		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (T_J = 25 ° C)						
Continuous Current	I _S				15	A
Forward Voltage ¹	V _{SD}	I _F = 13.8A, V _{GS} = 0V			1.2	V
Reverse Recovery Time	t _{rr}	I _F = 7.5A, di _F /dt = 100A/μs		270		nS
Reverse Recovery Charge	Q _{rr}				3.1	

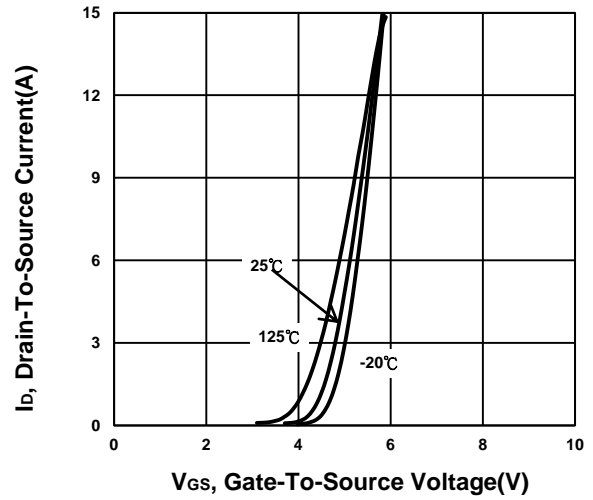
¹Pulse test : Pulse Width ≤ 300 μsec, Duty Cycle ≤ 2%.

²Independent of operating temperature.

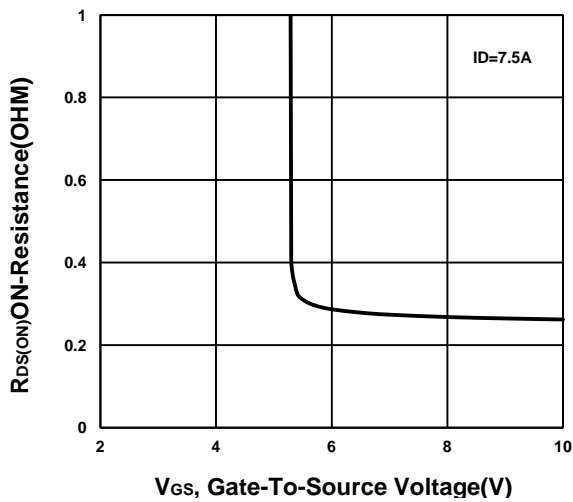
Output Characteristics



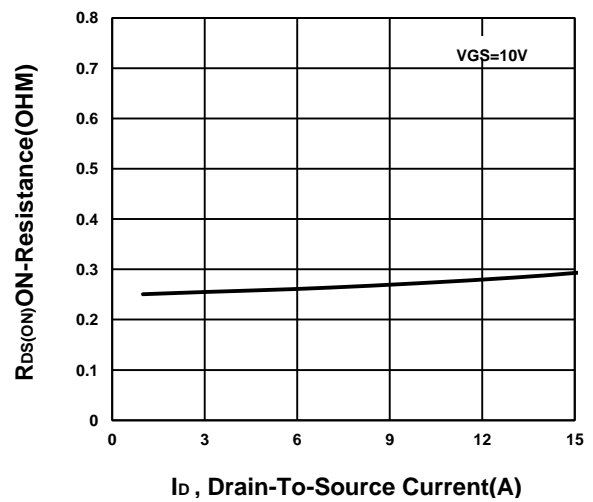
Transfer Characteristics



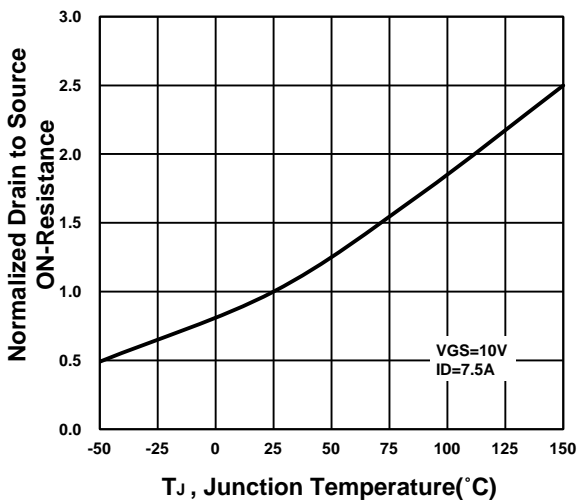
On-Resistance VS Gate-To-Source Voltage



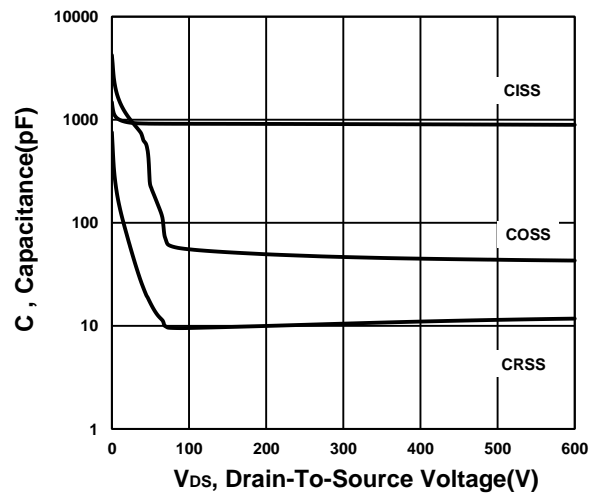
On-Resistance VS Drain Current



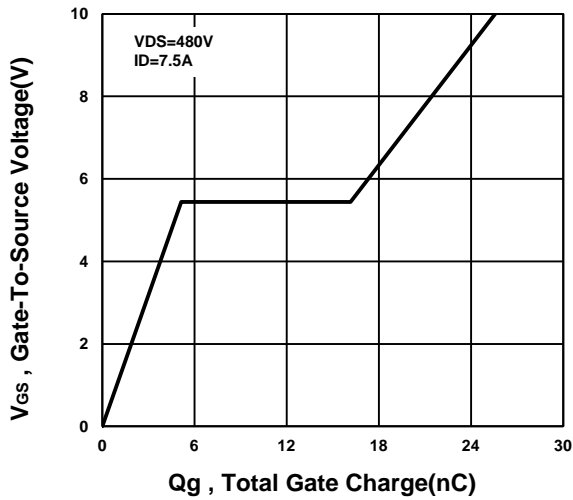
On-Resistance VS Temperature



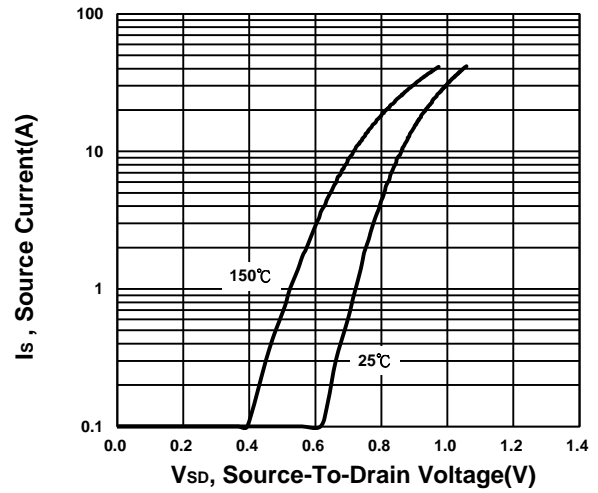
Capacitance Characteristic



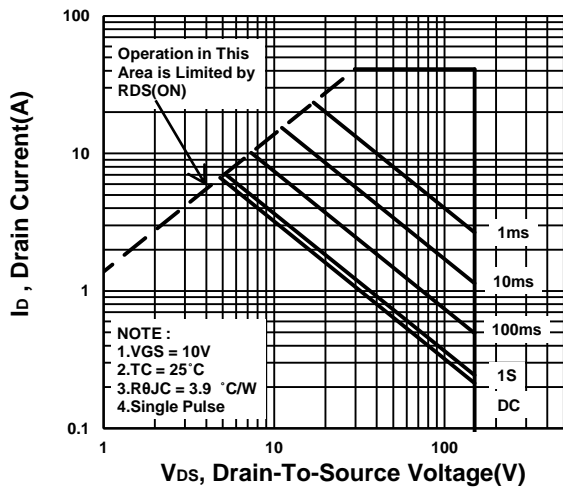
Gate charge Characteristics



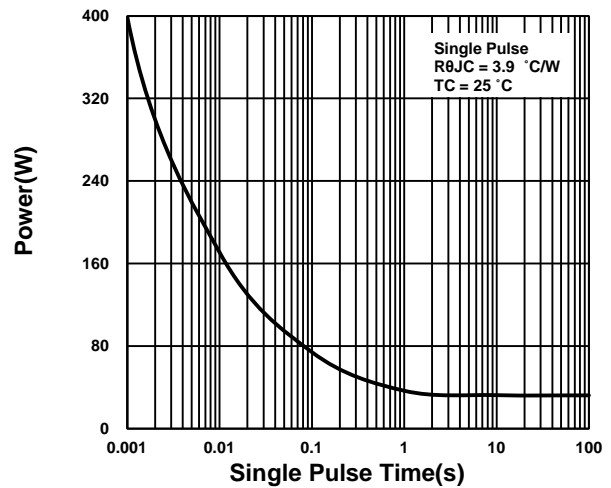
Source-Drain Diode Forward Voltage



Safe Operating Area



Single Pulse Maximum Power Dissipation



Transient Thermal Response Curve

