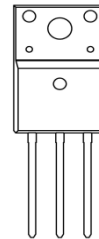
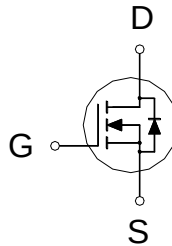


PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
700V	380m Ω	11A



1 2 3

1. GATE
2. DRAIN
3. SOURCE


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

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Drain-Source Voltage		V_{DS}	700	V
Gate-Source Voltage		V_{GS}	± 30	V
Continuous Drain Current ²	$T_C = 25^\circ\text{C}$	I_D	11	A
	$T_C = 100^\circ\text{C}$		7	
Pulsed Drain Current ¹		I_{DM}	33	
Avalanche Current ³		I_{AS}	2.3	
Avalanche Energy ³		E_{AS}	198	mJ
Power Dissipation	$T_C = 25^\circ\text{C}$	P_D	32	W
	$T_C = 100^\circ\text{C}$		13	
Operating Junction & Storage Temperature Range		T_j, T_{stg}	-55 to 150	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Case	$R_{\theta JC}$		3.8	$^\circ\text{C} / \text{W}$
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 .

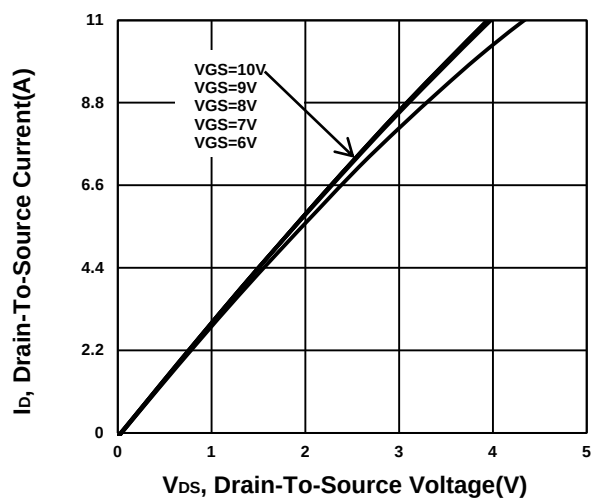
³ $V_{DD} = 50\text{V}$, $L = 75\text{mH}$, starting $T_j = 25^\circ\text{C}$.

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$, Unless Otherwise Noted)

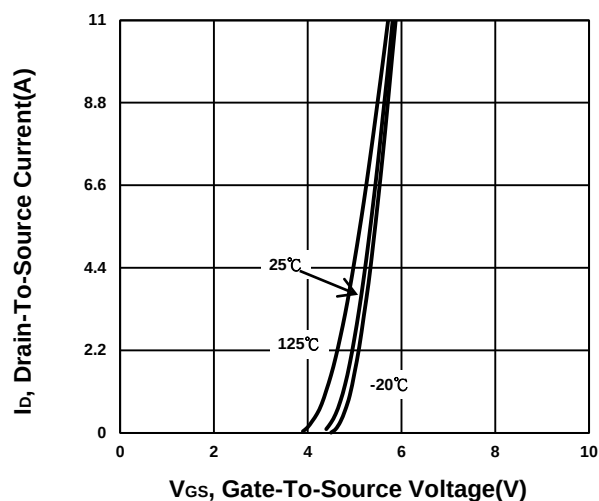
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	700			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	2	3	4	
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 30V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 700V, V_{GS} = 0V$			1	μA
		$V_{DS} = 560V, V_{GS} = 0V, T_J = 100^\circ C$			10	
Drain-Source On-State Resistance ¹	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 5.5A$		318	380	m Ω
Forward Transconductance	g_{fs}	$V_{DS} = 15V, I_D = 5.5A$		8.6		S
DYNAMIC						
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = 100V, f = 250KHz$		1042		pF
Output Capacitance	C_{oss}			44		
Reverse Transfer Capacitance	C_{rss}			3		
Gate Resistance	R_g	$f = 1MHz$		2		Ω
Total Gate Charge ⁴	Q_g	$V_{DS} = 560V, V_{GS} = 10V, I_D = 5.5A$		34		nC
Gate-Source Charge ⁴	Q_{gs}			6		
Gate-Drain Charge ⁴	Q_{gd}			15		
Turn-On Delay Time ⁴	$t_{d(on)}$	$V_{DD} = 350V,$ $I_D \cong 5.5A, V_{GS} = 10V, R_{GEN} = 25\Omega$		22		nS
Rise Time ⁴	t_r			32		
Turn-Off Delay Time ⁴	$t_{d(off)}$			112		
Fall Time ⁴	t_f			42		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS ($T_J = 25^\circ C$)						
Continuous Current	I_S				11	A
Forward Voltage	V_{SD}	$I_F = 11A, V_{GS} = 0V$			1.4	V
Reverse Recovery Time	t_{rr}	$I_F = 5.5A, dI_F/dt = 100A/\mu s$		268		nS
Reverse Recovery Charge	Q_{rr}			3		μC

⁴Independent of operating temperature.⁵Typical values, not 100% mass production tested, curves may be different, affected by product characteristic, unless noted otherwise.

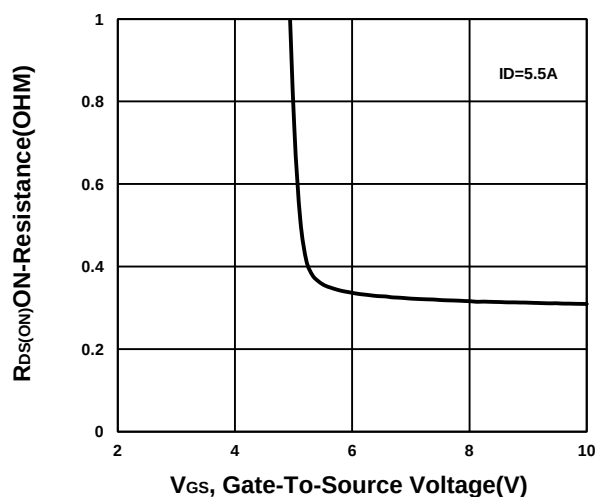
Output Characteristics,(Note5)



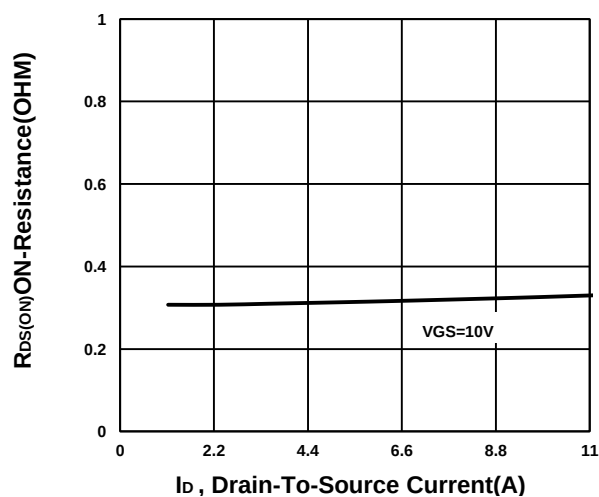
Transfer Characteristics,(Note5)



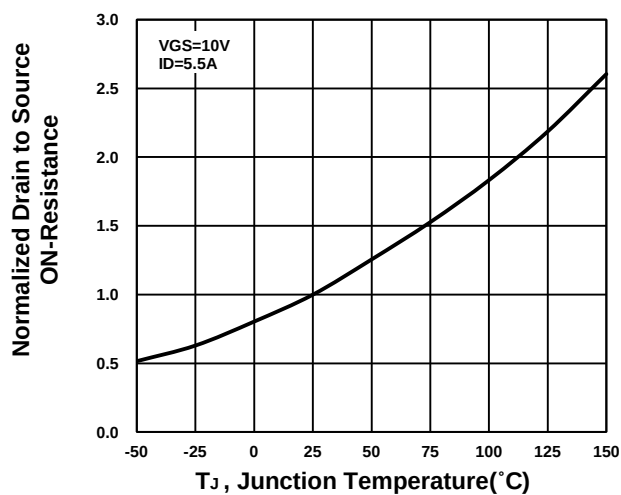
On-Resistance VS Gate-To-Source Voltage,(Note5)



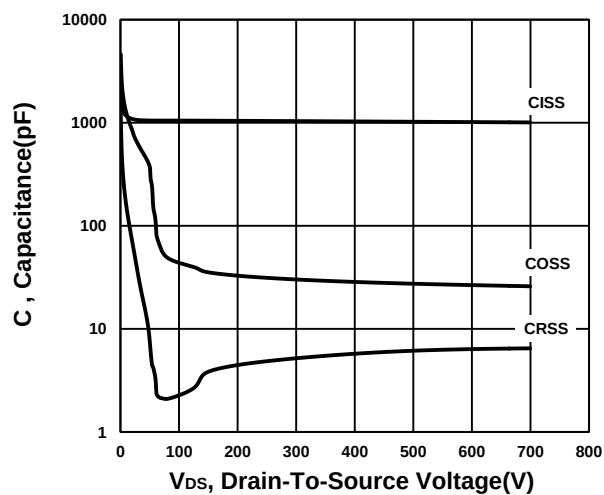
On-Resistance VS Drain Current,(Note5)



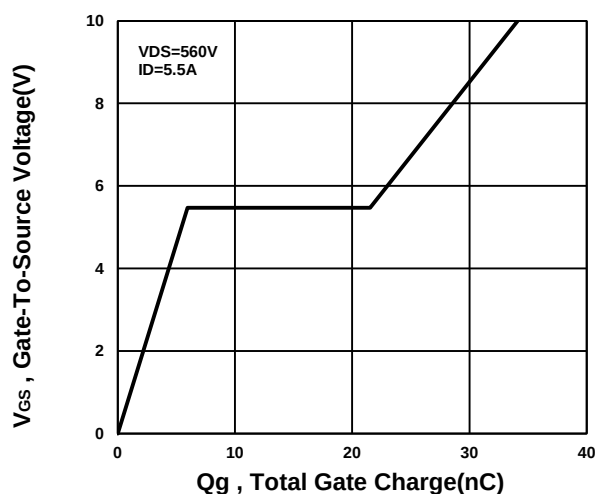
On-Resistance VS Temperature,(Note5)



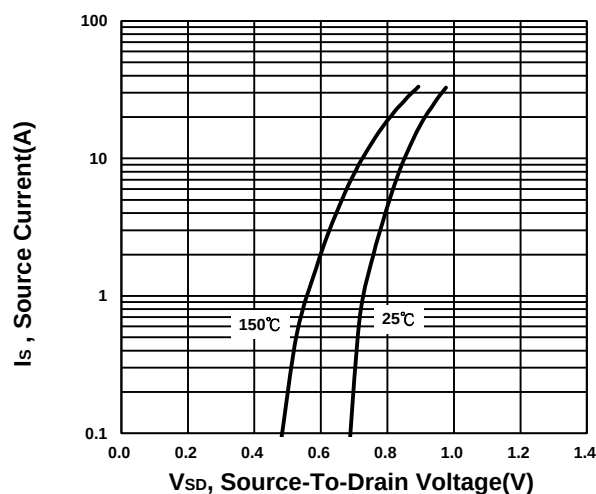
Capacitance Characteristic,(Note5)



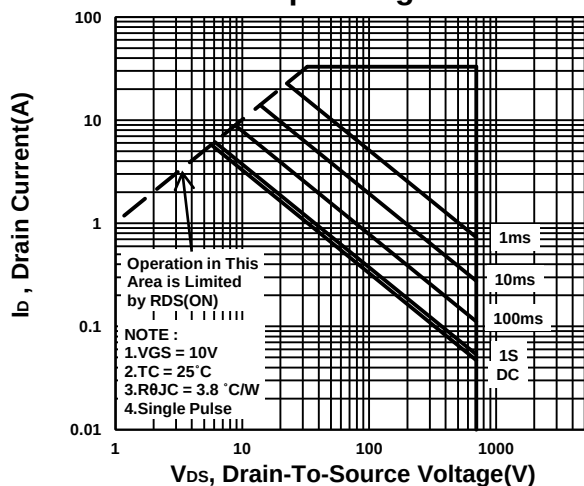
Gate charge Characteristics,(Note5)



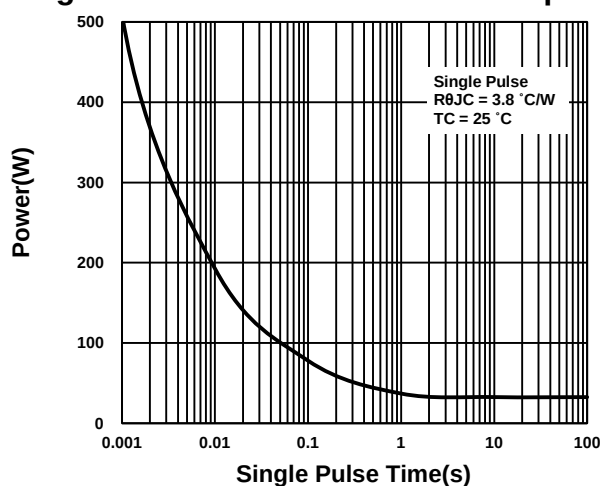
Source-Drain Diode Forward Voltage,(Note5)



Safe Operating Area



Single Pulse Maximum Power Dissipation



Transient Thermal Response Curve

