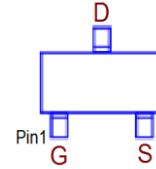
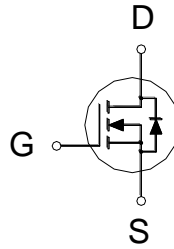




G: GATE
D: DRAIN
S: SOURCE

PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
150V	650mΩ	0.8A



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS	SYMBOL	LIMITS	UNITS
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	T _A = 25 °C	0.8
		T _A = 70 °C	0.7
Pulsed Drain Current ¹	I_{DM}	3.2	A
Power Dissipation ²	P_D	T _A = 25 °C	1.25
		T _A = 70 °C	0.8
Operating Junction & Storage Temperature Range	T _j , T _{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Ambient	$R_{\theta JA}$		100	°C/W
Junction-to-Ambient	$R_{\theta JA}$		146	

¹Pulse width limited by maximum junction temperature.

²The Power dissipation is based on $R_{\theta JA} t \leq 10s$ value.

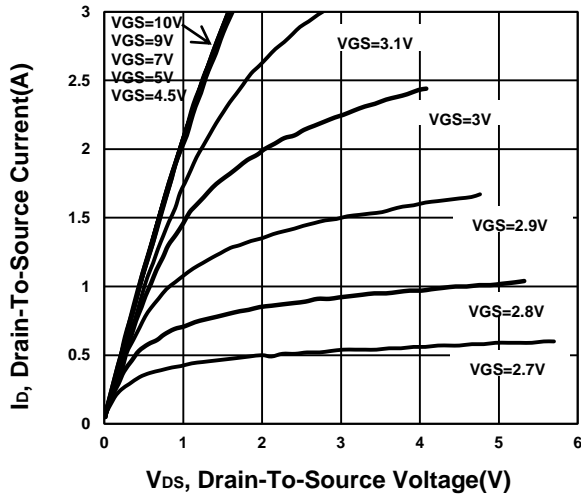
ELECTRICAL CHARACTERISTICS (T_J = 25 °C, Unless Otherwise Noted)

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	150			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.3	1.8	2.3	
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			±100	nA

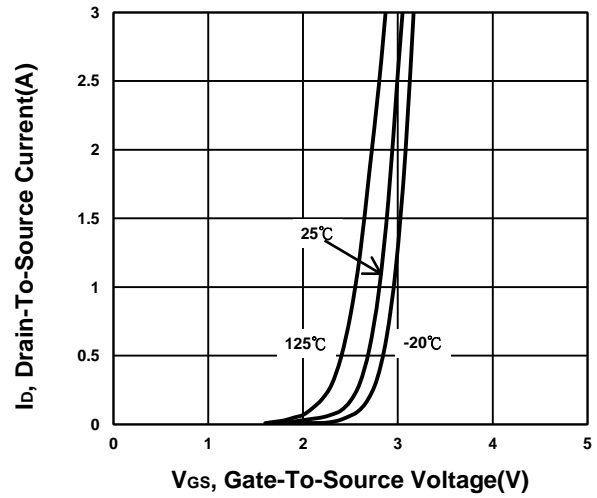
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 150V, V_{GS} = 0V$			1	μA
		$V_{DS} = 150V, V_{GS} = 0V, T_J = 100\text{ }^\circ C$			10	
Drain-Source On-State Resistance ¹	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 0.8A$		464	650	$m\Omega$
		$V_{GS} = 4.5V, I_D = 0.8A$		474	800	
Forward Transconductance ¹	g_{fs}	$V_{DS} = 5V, I_D = 0.8A$		4.2		S
DYNAMIC						
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = 25V, f = 1MHz$		318		pF
Output Capacitance	C_{oss}			23		
Reverse Transfer Capacitance	C_{rss}			19		
Gate Resistance	R_g	$V_{GS} = 0V, V_{DS} = 0V, f = 1MHz$		2.4		Ω
Total Gate Charge	Q_g	$V_{DS} = 75V, V_{GS} = 10V, I_D = 0.8A$		8.7		nC
Gate-Source Charge	Q_{gs}			0.8		
Gate-Drain Charge	Q_{gd}			3.6		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 75V, I_D \cong 0.8A, V_{GEN} = 10V, R_{GS} = 6\Omega$		6		nS
Rise Time	t_r			17		
Turn-Off Delay Time	$t_{d(off)}$			15		
Fall Time	t_f			38		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS ($T_J = 25\text{ }^\circ C$)						
Continuous Current	I_S				0.8	A
Forward Voltage ¹	V_{SD}	$I_F = 0.8A, V_{GS} = 0V$			1	V
Reverse Recovery Time	t_{rr}	$I_F = 0.8A, di_F/dt = 100A / \mu S$		26		nS
Reverse Recovery Charge	Q_{rr}			26		nC

¹Pulse test : Pulse Width $\leq 300\ \mu sec$, Duty Cycle $\leq 2\%$.

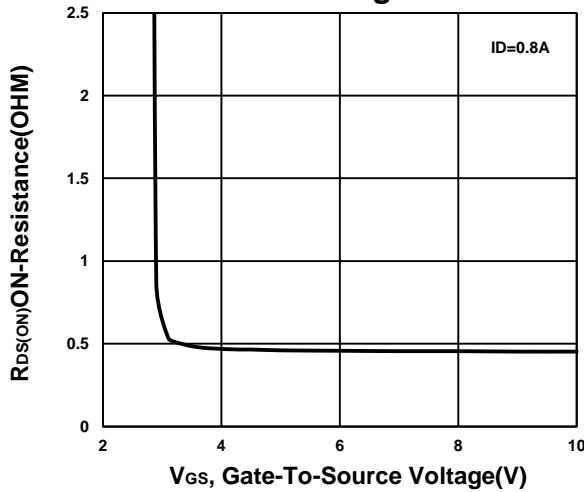
Output Characteristics



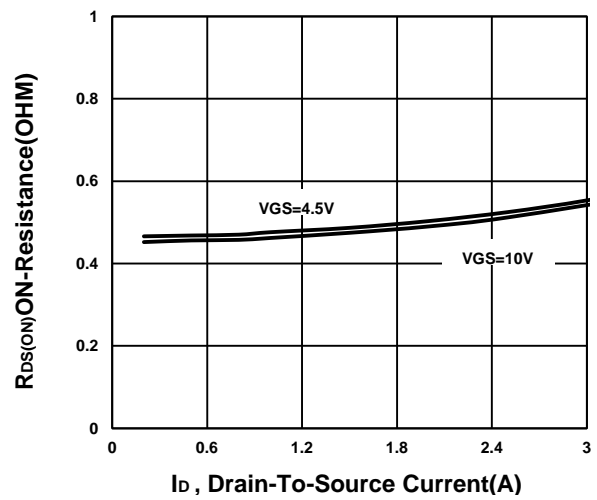
Transfer Characteristics



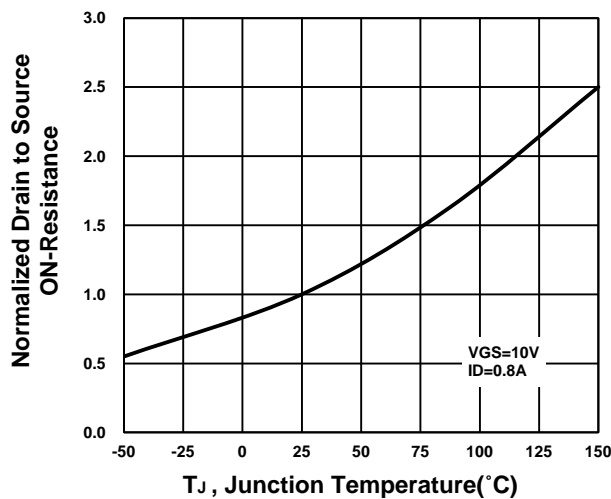
On-Resistance VS Gate-To-Source Voltage



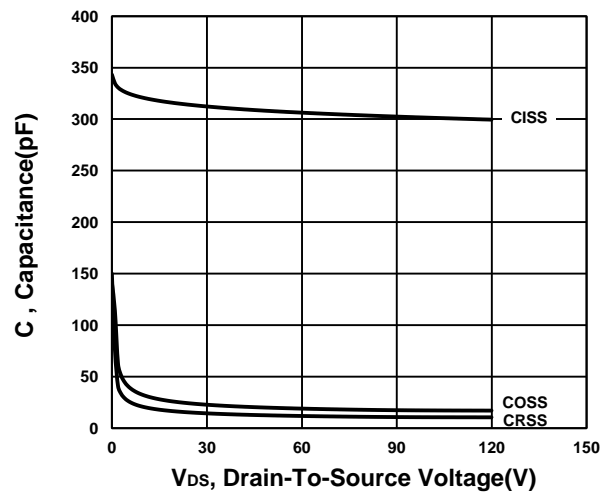
On-Resistance VS Drain Current



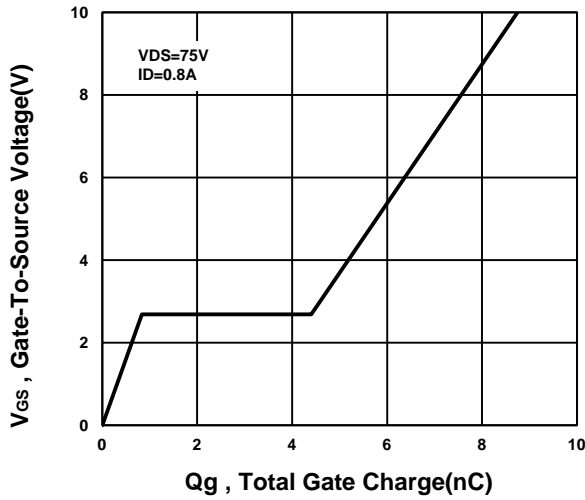
On-Resistance VS Temperature



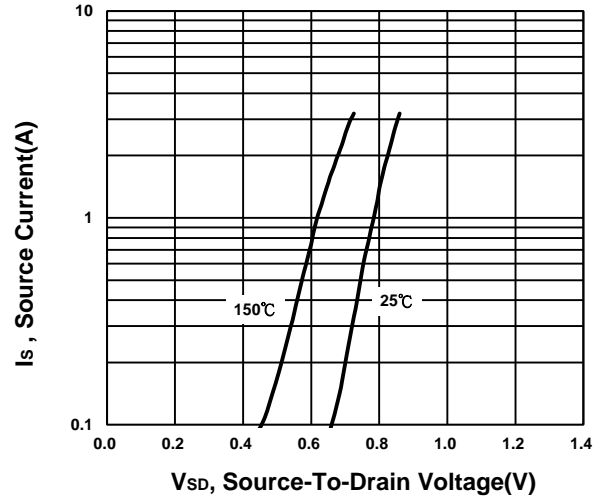
Capacitance Characteristic



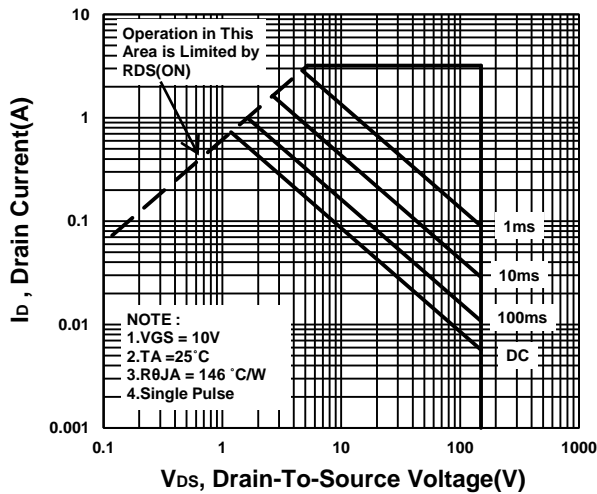
Gate charge Characteristics



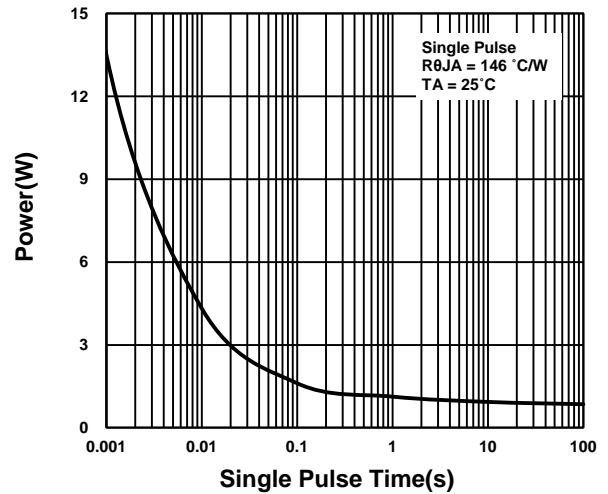
Source-Drain Diode Forward Voltage



Safe Operating Area



Single Pulse Maximum Power Dissipation



Transient Thermal Response Curve

