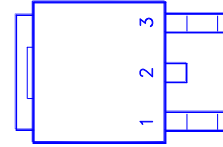
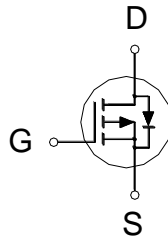


PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
-100V	110mΩ	-16A



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

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

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Drain-Source Voltage		V_{DS}	-100	V
Gate-Source Voltage		V_{GS}	±25	V
Continuous Drain Current	T _C = 25 °C	I_D	-16	A
	T _C = 100 °C		-10	
Pulsed Drain Current ¹		I_{DM}	-61	
Avalanche Current		I_{AS}	-14	
Avalanche Energy	L = 1mH	E_{AS}	98	mJ
Power Dissipation	T _C = 25 °C	P_D	62.5	W
	T _C = 100 °C		25	
Junction & Storage Temperature Range		T _J , T _{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Ambient	$R_{\theta JA}$		50	°C / W
Junction-to-Case	$R_{\theta JC}$		2	

¹Pulse width limited by maximum junction temperature.

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

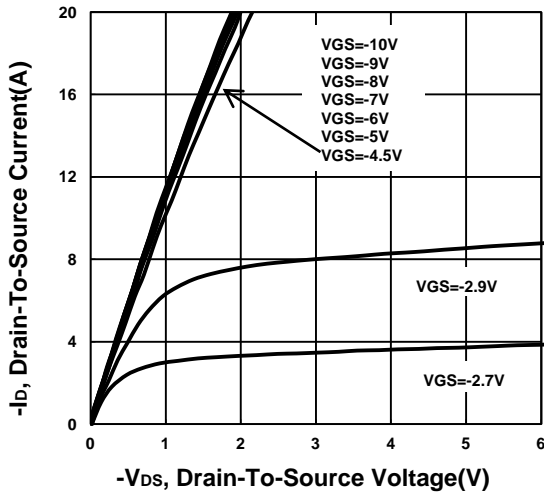
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-100			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.3	-1.8	-2.3	V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 25V$			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -100V, V_{GS} = 0V$			-1	μA
		$V_{DS} = -100V, V_{GS} = 0V, T_J = 55 °C$			-10	

Drain-Source On-State Resistance ¹	$R_{DS(ON)}$	$V_{GS} = -4.5V, I_D = -10A$	98	130	mΩ
		$V_{GS} = -10V, I_D = -15A$	94	110	
Forward Transconductance ¹	g_{fs}	$V_{DS} = -5V, I_D = -15A$	36		S
DYNAMIC					
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = -50V, f = 1MHz$	2498		pF
Output Capacitance	C_{oss}		112		
Reverse Transfer Capacitance	C_{rss}		73		
Gate Resistance	R_g	$V_{GS} = 0V, V_{DS} = 0V, f = 1MHz$	10.6		Ω
Total Gate Charge ²	Q_g	$V_{DS} = -50, V_{GS} = -10V, I_D = -15A$	47		nC
Gate-Source Charge ²	Q_{gs}		7.3		
Gate-Drain Charge ²	Q_{gd}		10		
Turn-On Delay Time ²	$t_{d(on)}$	$V_{DS} = -50V, I_D = -15A, V_{GS} = -10V, R_{GEN} = 6Ω$	9		nS
Rise Time ²	t_r		48		
Turn-Off Delay Time ²	$t_{d(off)}$		123		
Fall Time ²	t_f		82		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (T_J = 25 °C)					
Continuous Current	I_S			-16	A
Forward Voltage ¹	V_{SD}	$I_F = -15A, V_{GS} = 0V$		-1.2	V
Reverse Recovery Time	t_{rr}	$I_F = -15A, di_F/dt = 100A / μS$	36		nS
Reverse Recovery Charge	Q_{rr}		72		nC

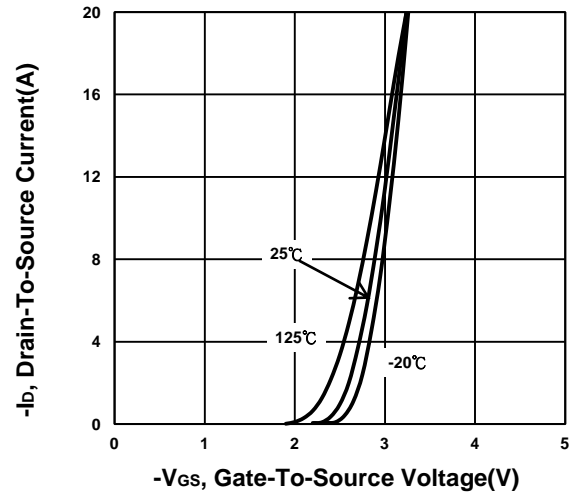
¹Pulse test : Pulse Width ≤ 300 μsec, Duty Cycle ≤ 2%.

²Independent of operating temperature.

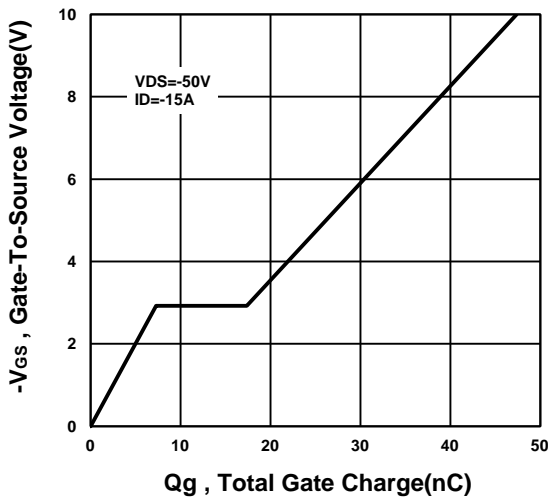
Output Characteristics



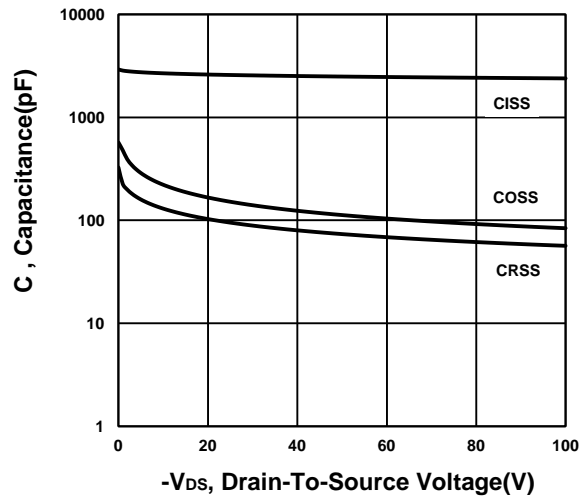
Transfer Characteristics



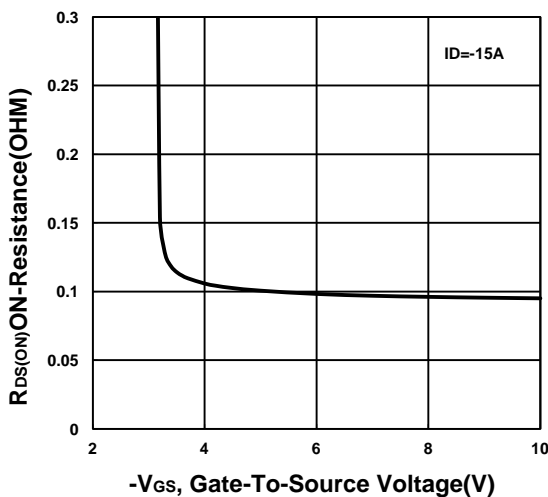
Gate charge Characteristics



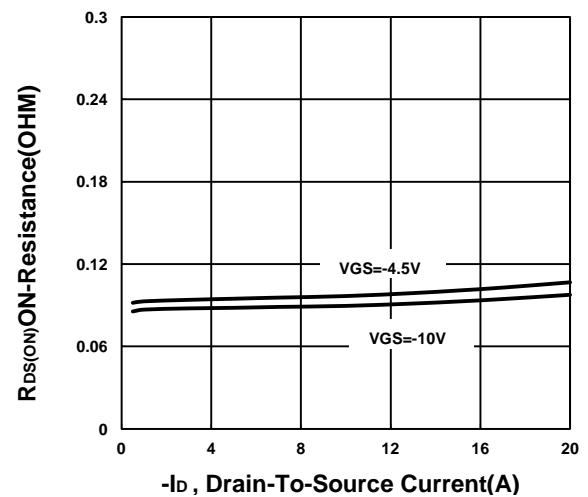
Capacitance Characteristic



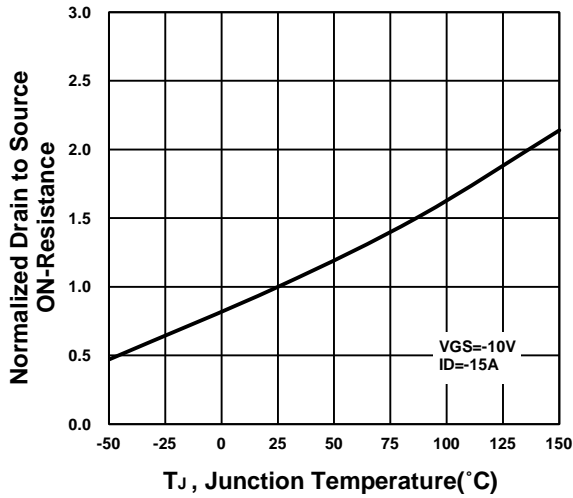
On-Resistance VS Gate-To-Source Voltage



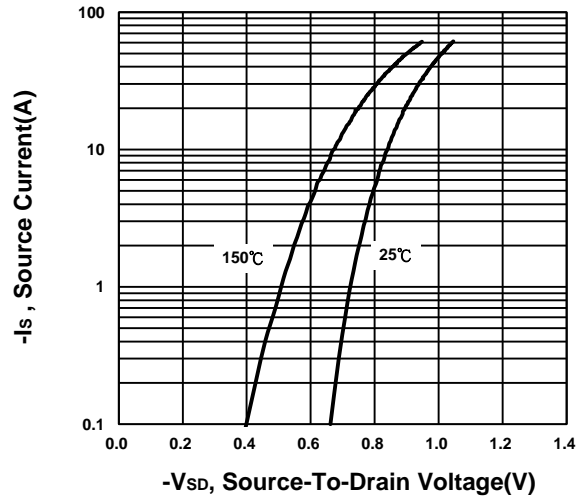
On-Resistance VS Drain Current



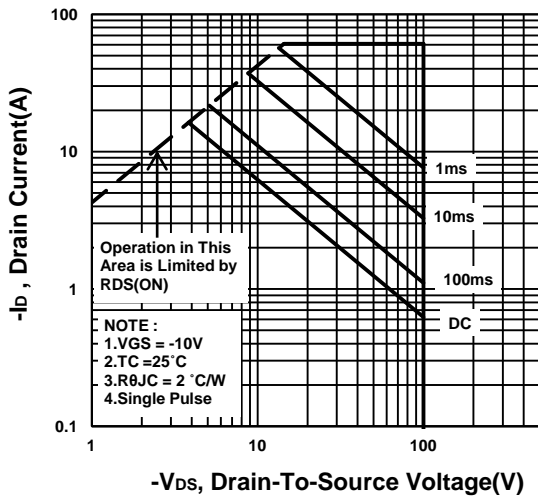
On-Resistance VS Temperature



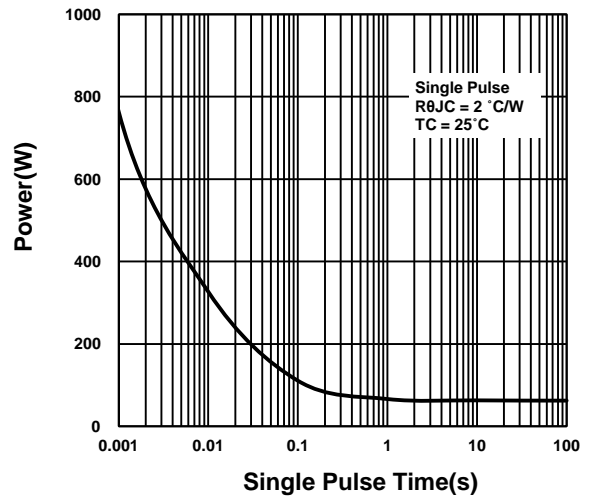
Source-Drain Diode Forward Voltage



Safe Operating Area



Single Pulse Maximum Power Dissipation



Transient Thermal Response Curve

