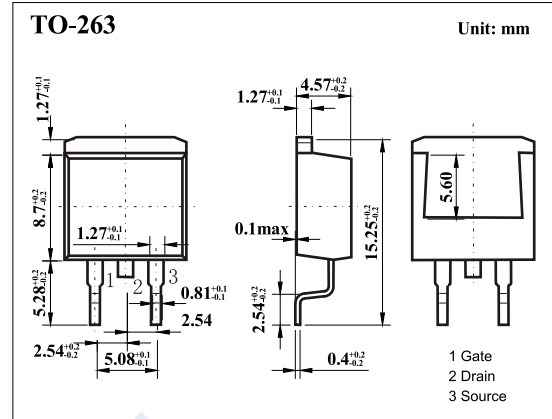
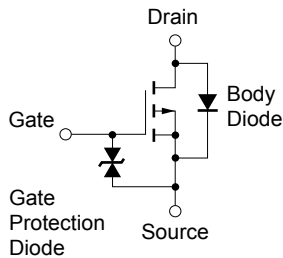


P-Channel MOSFET

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■ Features

- $V_{DS}(V) \approx -60V$
- $I_D \approx -25A$
- $R_{DS(ON)} < 48m\Omega$ ($V_{GS} \approx -10V$)
- $R_{DS(ON)} < 75m\Omega$ ($V_{GS} \approx -4V$)
- Low C_{iss} : $C_{iss} = 1900$ pF (TYP.)



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-60	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	-25	A
Pulsed Drain Current (Note.1)	I_{DM}	-70	
Single Avalanche Current (Note.2)	I_{AS}	-25	
Power Dissipation	P_D	50	W
		1.5	
Single Avalanche Energy (Note.2)	E_{AS}	62.5	mJ
Junction Temperature	T_J	150	$^\circ C$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10\mu s$, Duty Cycle $\leq 1\%$

Note.2: Starting $T_J = 25^\circ C$, $V_{DD} = -30V$, $R_G = 25\Omega$, $V_{GS} = -20V \rightarrow 0$

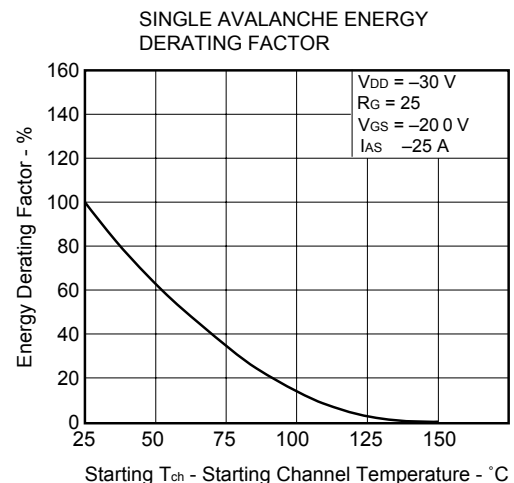
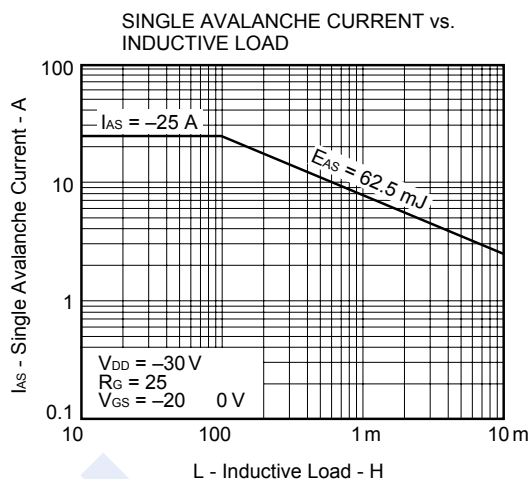
P-Channel MOSFET

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Typical Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D = -250 \mu A$, $V_{GS} = 0V$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60V$, $V_{GS} = 0V$			-10	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 20V$			± 10	μA
Gate Cut off Voltage	$V_{GS(off)}$	$V_{DS} = -10V$, $I_D = -1mA$	-1.5		-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -13A$			48	$m\Omega$
		$V_{GS} = -4V$, $I_D = -13A$			75	
Forward Transconductance	g_{FS}	$V_{DS} = -10V$, $I_D = -13A$	10	21		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -10V$, $f = 1MHz$		1900		pF
Output Capacitance	C_{oss}			350		
Reverse Transfer Capacitance	C_{rss}			140		
Total Gate Charge	Q_g	$V_{GS} = -10V$, $V_{DS} = -48V$, $I_D = -25A$		38		nC
Gate Source Charge	Q_{gs}			7		
Gate Drain Charge	Q_{gd}			10		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS(on)} = -10V$, $V_{DS} = -30V$, $I_D = -13A$, $R_G = 0 \Omega$		10		ns
Turn-On Rise Time	t_r			11		
Turn-Off Delay Time	$t_{d(off)}$			66		
Turn-Off Fall Time	t_f			20		
Body Diode Reverse Recovery Time	t_{rr}	$I_F = -25A$, $V_{GS} = 0$, $di/dt = 100A/\mu s$		49		nC
Body Diode Reverse Recovery Charge	Q_{rr}			100		
Diode Forward Voltage	V_{SD}	$I_F = -25A$, $V_{GS} = 0V$		-1		V

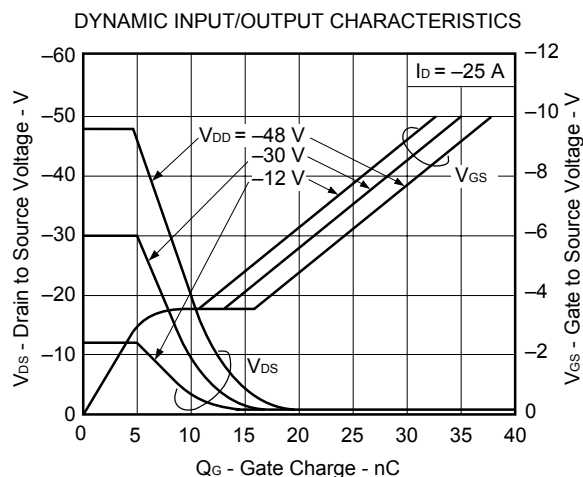
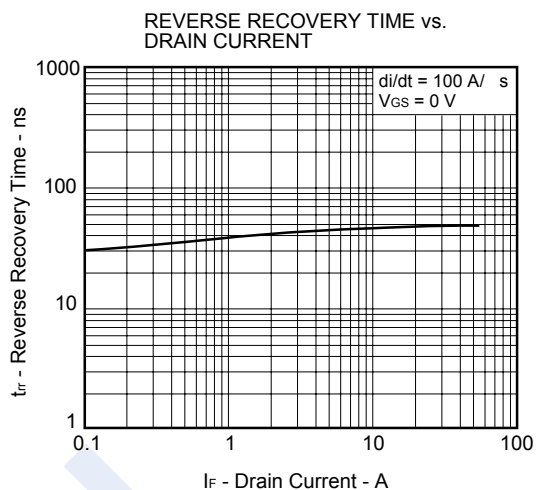
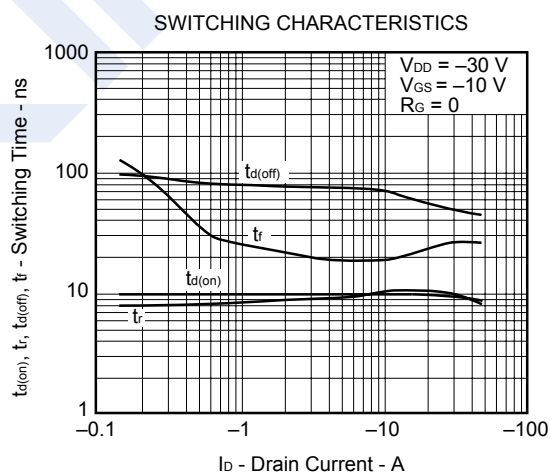
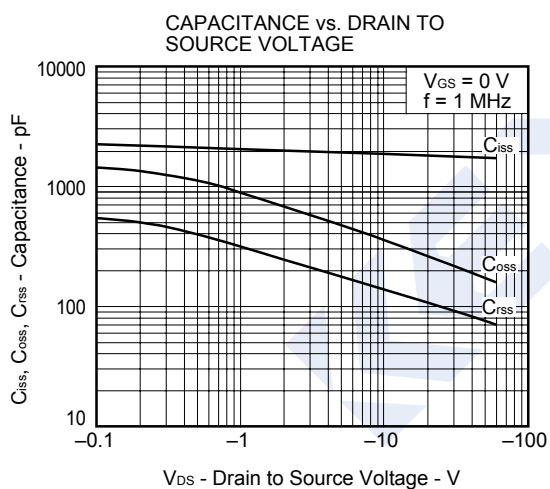
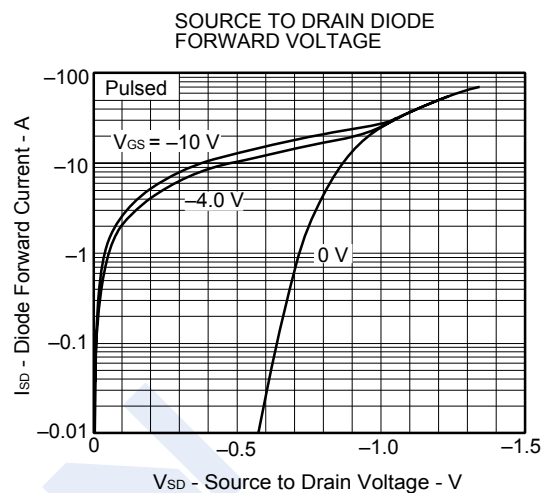
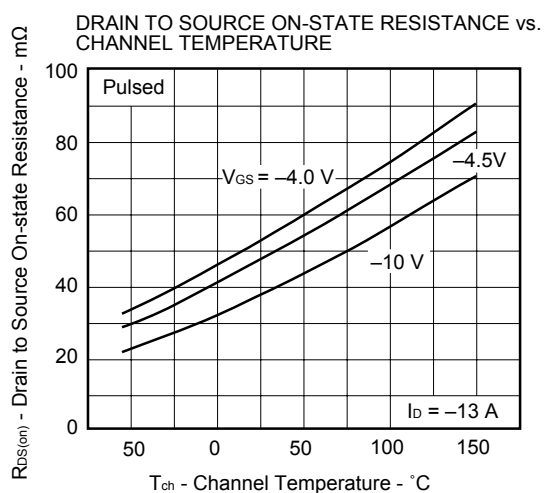
Typical Characteristics



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■ Typical Characteristics

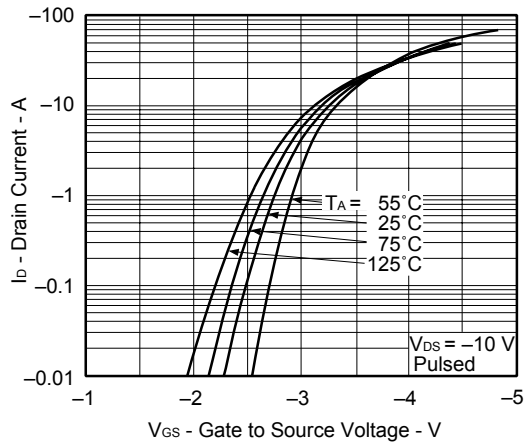
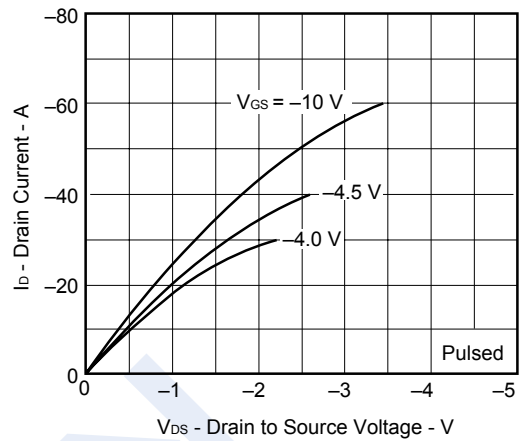
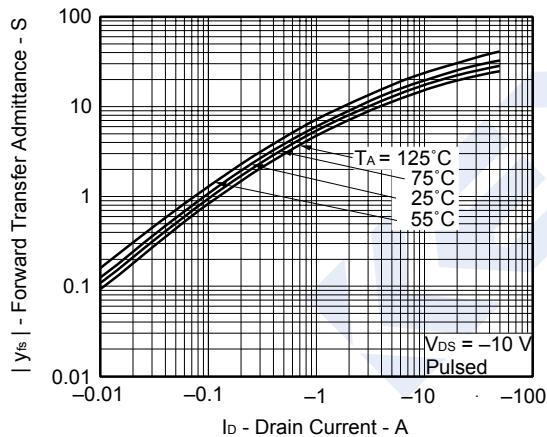
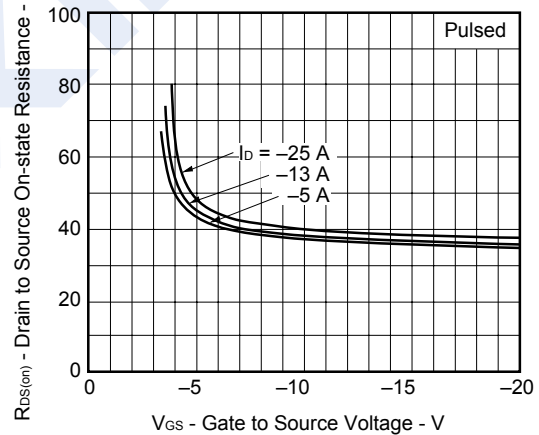
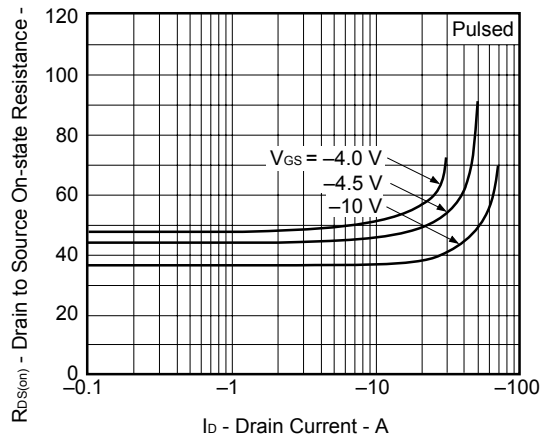
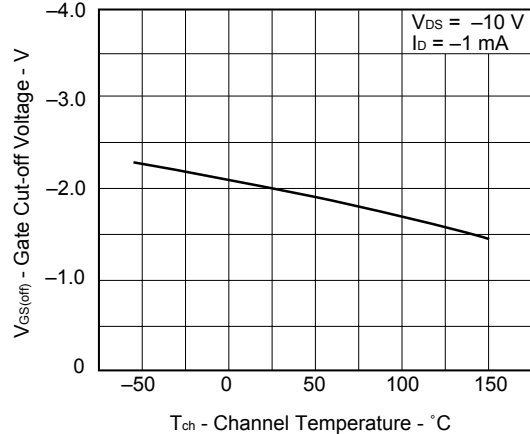


P-Channel MOSFET

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■ Typical Characteristics

FORWARD TRANSFER CHARACTERISTICS

DRAIN CURRENT vs.
DRAIN TO SOURCE VOLTAGEFORWARD TRANSFER ADMITTANCE vs.
DRAIN CURRENTDRAIN TO SOURCE ON-STATE RESISTANCE vs.
GATE TO SOURCE VOLTAGEDRAIN TO SOURCE ON-STATE
RESISTANCE vs. DRAIN CURRENTGATE CUT-OFF VOLTAGE vs.
CHANNEL TEMPERATURE

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Typical Characteristics

