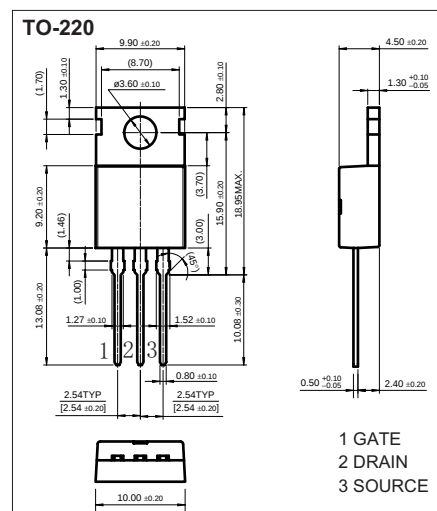
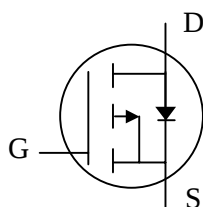


P-Channel Enhancement MOSFET

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■ Features

- $V_{DS} (V) = -30V, I_D = -30 A$
- $R_{DS(ON)} < 28m\Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 50m\Omega (V_{GS} = -4.5V)$



■ Absolute Maximum Ratings $T_a = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	-30	A
		-18	
Pulsed Drain Current	I_{DM}	-120	
Power Dissipation	P_D	31.3	W
Thermal Resistance Junction- to-Ambient	R_{thJA}	110	°C/W
Thermal Resistance Junction- to-Case	R_{thJC}	4	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

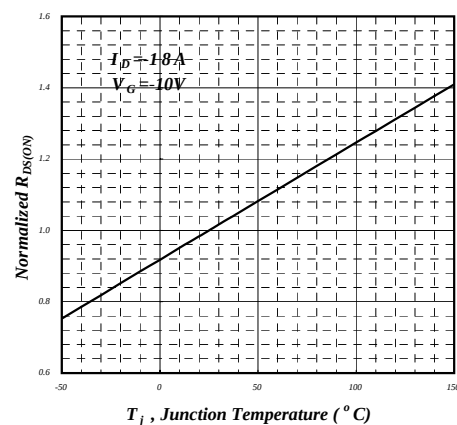
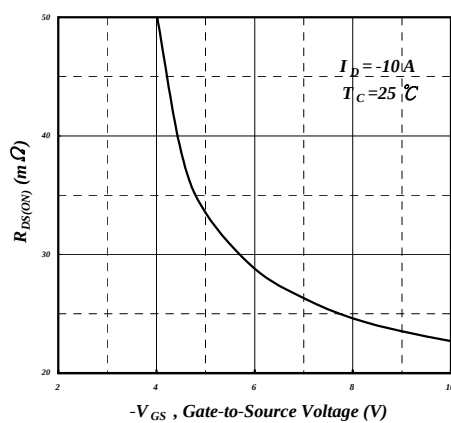
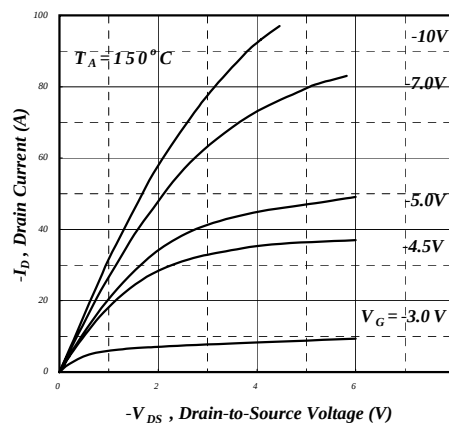
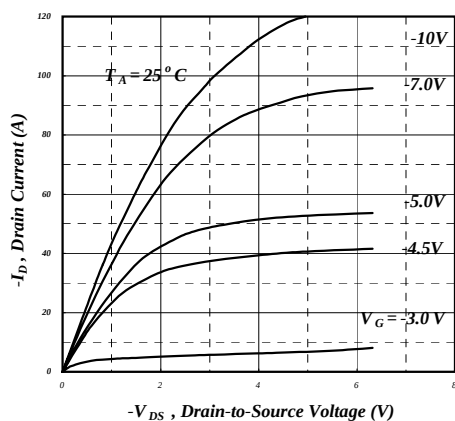
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■ Electrical Characteristics Ta = 25

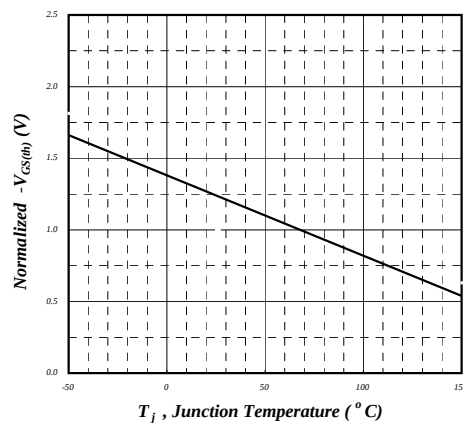
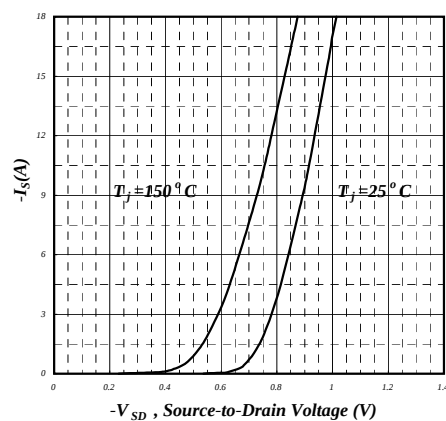
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D = -250 \mu A$, $V_{GS} = 0V$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V$, $V_{GS} = 0V$			-1	μA
		$V_{DS} = -24V$, $V_{GS} = 0V$, $T_J = 150$			-25	
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = -250 \mu A$	-1		-3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -18A$			28	m Ω
		$V_{GS} = -4.5V$, $I_D = -10A$			50	
Forward Transconductance	g_{FS}	$V_{DS} = -10V$, $I_D = -18A$		20		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -25V$, $f = 1MHz$		915	1465	pF
Output Capacitance	C_{oss}			280		
Reverse Transfer Capacitance	C_{rss}			195		
Total Gate Charge	Q_g	$V_{GS} = -4.5V$, $V_{DS} = -24V$, $I_D = -18A$		14	22	nC
Gate Source Charge	Q_{gs}			3		
Gate Drain Charge	Q_{gd}			9		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS} = -10V$, $V_{DS} = -15V$, $R_D = 0.8 \Omega$, $R_G = 3.3 \Omega$, $I_D = -18A$		12		ns
Turn-On Rise Time	t_r			56		
Turn-Off DelayTime	$t_{d(off)}$			30		
Turn-Off Fall Time	t_f			57		
Body Diode Reverse Recovery Time	t_{rr}	$I_S = -18A$, $dI/dt = -100A/\mu s$		30		
Body Diode Reverse Recovery Charge	Q_{rr}	$I_S = -18A$, $dI/dt = -100A/\mu s$		21		nC
Diode Forward Voltage	V_{SD}	$I_S = -18A$, $V_{GS} = 0V$			-1.2	V

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■ Typical Characteristics



v.s. Junction Temperature



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■ Typical Characteristics

