

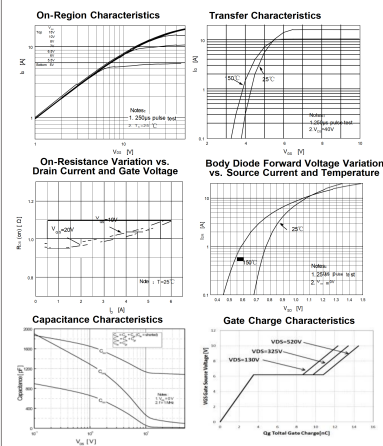
7N65F

Electrical Characteristics ($T_c=25^{\circ}\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Gate-Source Breakdown Voltage	BV_{GSS}	$V_{GS} = 0V, I_G = 250\mu A$	650	V		V
Gate-Source Leakage Current	I_{GSS}	$V_{GS} = 850V, V_{DS} = 0V$			1	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS} = 20V, V_{DS} = 0V$			100	nA
		Forward				
		Reverse			>100	nA
Breakdown Voltage Temperature Coefficient	(BV_{GSS}/T)	$V_{GS} = 20V, V_{DS} = 0V$ (+25°C to +125°C, referenced to 25°C)	0.07	%/°C		
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = 0V, I_G = 250\mu A$	2.0	4.0	1.0	V
Static Drain-Source On-State Resistance	$R_{DS(on)}$	$V_{GS} = 10V, V_{DS} = 5.5A$	1.0	1.07	0	Ω
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}			1400	pf	
Output Capacitance	C_{oss}	$V_{GS} = 10V, V_{DS} = 50V$		180	pf	
Reverse Transfer Capacitance	C_{rss}	$f = 10\text{ MHz}$		16	21	pf
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_{d(on)}$			70		ns
Turn-On Rise Time	t_r	$V_{DS} = 350V, I_G = 1A$		140		ns
Turn-Off Delay Time	$t_{d(off)}$	$R_{DS(on)} = 1\Omega, I_G = 1A$		140		ns
Turn-Off Fall Time	t_f			130		ns
SWITCHING CHARACTERISTICS						
Total Gate Charge	Q_g	$V_{GS} = 50V, I_G = 1A$	29	38		nC
Gate-Source Charge	Q_{gs}	$V_{GS} = 10V, I_G = 1A$	14.5			nC
Gate-Drain Charge	Q_{gd}	$V_{GS} = 10V, I_G = 1A$				nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS} = 0V, I_S = 1A$	1.4	V		V
Maximum Continuous Drain-Source Diode Forward Current	I_{SD}		7		A	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SDM}		29.6		A	A
Reverse Recovery Time	t_{rr}		320		ns	ns
Reverse Recovery Charge	Q_{rr}	$dI/dt = 100A/\mu s$ (Note 1)	2			μC

Notes: 1. Pulse Test: Pulse width $\leq 300\mu s$, Duty cycle $\leq 2\%$
2. Essentially independent of operating temperature

RATING AND CHARACTERISTIC CURVES (7N65F)



RATING AND CHARACTERISTIC CURVES (7N65F)

