



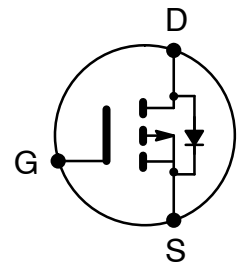
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NTE2998 MOSFET P-Channel, Enhancement Mode High Speed Switch (Compl to NTE2906)

Features:

- High Speed Switching
- High Voltage
- High Energy Rating
- Enhancement Mode
- Integral Protection Diode



Absolute Maximum Ratings: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Drain-Source Voltage, V_{DSX}	200V
Gate-Source Voltage, V_{GSS}	$\pm 14\text{V}$
Continuous Drain Current, I_D	8A
Body Drain Diode, $I_{D(PK)}$	8A
Total Power Dissipation ($T_C = +25^\circ\text{C}$), P_D	125W
Maximum Operating Junction Temperature, T_J	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Case, R_{thJC}	1.0°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV_{DSX}	$V_{GS} = 10\text{V}, I_D = 10\text{mA}$	200	-	-	V
Gate-Source Breakdown Voltage	BV_{GSS}	$V_{DS} = 0, I_G = \pm 100\mu\text{A}$	± 14	-	-	V
Gate-Source Cut-Off Voltage	$V_{GS(OFF)}$	$V_{DS} = 10\text{V}, I_D = 100\text{mA}$	0.15	-	1.5	V
Drain-Source Saturation Voltage	$V_{DS(SAT)}$	$V_{GD} = 0, I_D = 8\text{A}, \text{Note 1}$	-	-	12	V
Drain-Source Cut-Off Current	I_{DSX}	$V_{GS} = 10\text{V}, V_{DS} = 200\text{V}$	-	-	10	mA
Forward Transfer Admittance	y_{fs}	$V_{DS} = 10\text{V}, I_D = 3\text{A}, \text{Note 1}$	0.7	-	2.0	S

Note 1. Pulse Test: Pulse Width = $300\mu\text{s}$, Duty Cycle $\leq 2\%$.

Electrical Characteristics (Cont'd): ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$	-	734	-	pF
Output Capacitance	C_{oss}		-	300	-	pF
Reverse Transfer Capacitance	C_{rss}		-	26	-	pF
Turn-On Time	t_{on}	$V_{DS} = 20\text{V}, I_D = 5\text{A}$	-	120	-	ns
Turn-Off Time	t_{off}		-	60	-	ns

