



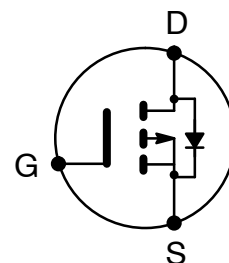
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**NTE2998**  
**MOSFET**  
**P-Channel, Enhancement Mode**  
**High Speed Switch**  
**(Compl to NTE2906)**  
**TO3 Type Package**

**Features:**

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



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

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

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

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

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

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

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

