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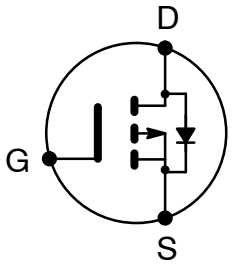
RoHS 2002/95/EC

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 C unless otherwise specified)

Drain–Source Voltage, V_{DSX} 200V
Gate–Source Voltage, V_{GSS} μ14V
Continuous Drain Current, I_D 8A
Body Drain Diode, $I_{D(PK)}$ 8A
Total Power Dissipation (T_C = +25 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 C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Static Characteristics						
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 = μ100μA	μ14	–	–	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, 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, Note 1	0.7	–	2.0	S

Note 1. Pulse Test: Pulse Width = 300μs, Duty Cycle 2%.

Electrical Characteristics (Cont'd): (T_C = +25 C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Dynamic Characteristics						
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