ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
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NTE492
MOSFET
N–Ch, Enhancement Mode
High Speed Switch

Absolute Maximum Ratings:

Drain–Source Voltage, V_{DS} 200V
Gate–Source Voltage, V_{GS} . . . . . ±20V
Drain Current, I_D
  Continuous (Note 1) 250mA
  Pulsed (Note 2) 500mA
Total Device Dissipation (T_A = +25°C), P_D 350mW
  Derate above 25°C . . . . . 2.8mW/°C
Operating Junction Temperature Range, T_J . . . . . –55° to +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Note 1. The Power Dissipation of the package may result in a lower continuous drain current.
Note 2. Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Zero–Gate–Voltage Drain Current	I_{DSS}	V_{DS} = 130V, V_{GS} = 0	–	–	30	nA
Drain–Source Breakdown Voltage	$V_{(BR)DSX}$	V_{GS} = 0, I_D = 100μA	200	–	–	V
Gate Reverse Current	I_{GSS}	V_{GS} = 15V, V_{DS} = 0	–	0.01	10.0	nA
ON Characteristics (Note 2)						
Gate Threshold Voltage	$V_{GS(Th)}$	I_D = 1mA, V_{DS} = V_{GS}	1.0	–	3.0	V
Static Drain–Source ON Resistance	$r_{DS(on)}$	V_{GS} = 10V, I_D = 100mA	–	4.5	6.0	Ω
		V_{GS} = 10V, I_D = 250mA	–	4.8	6.4	Ω
Small–Signal Characteristics						
Input Capacitance	C_{iss}	V_{DS} = 25V, V_{GS} = 0, f = 1MHz	–	60	–	pF
Reverse Transfer Capacitance	C_{rss}	V_{DS} = 25V, V_{GS} = 0, f = 1MHz	–	6.0	–	pF
Output Capacitance	C_{oss}	V_{DS} = 25V, V_{GS} = 0, f = 1MHz	–	30	–	pF
Forward Transconductance	g_{fs}	V_{DS} = 25V, I_D = 250mA	200	400	–	mmhos

Note 2. Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Switching Characteristics						
Turn–On Time	t_{on}		–	6.0	15.0	ns
Turn–Off Time	t_{off}		–	12	15	ns