



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE2393 MOSFET N-Channel Enhancement Mode, High Speed Switch TO3P Type Package

Description:

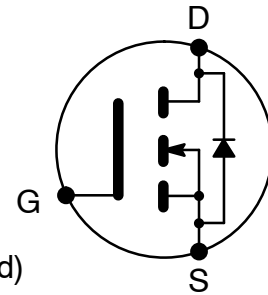
The NTE2393 is an N-Channel Enhancement Mode Power MOS Field Effect Transistor in a TO3P type package designed especially for high voltage, high speed applications such as off-line switching power supplies, UPS, AC and DC motor controls, relays, and solenoid drivers.

Features:

- Drain Current: $I_D = 10A$ at $T_C = +25^\circ C$
- Drain Source Voltage: $V_{DSS} = 500V$ Min

Industrial Applications:

- Switching Mode Power Supplies
- Motor Controls



Absolute Maximum Ratings: ($T_A = +25^\circ C$ unless otherwise specified)

| | |
|---|----------------|
| Drain-Source Voltage ($V_{GS} = 0$), V_{DSS} | 500V |
| Gate-Source Voltage, V_{GS} | $\pm 20V$ |
| Continuous Drain Current ($T_C = +25^\circ C$), I_D | 10A |
| Total Dissipation ($T_C = +25^\circ C$), P_{tot} | 125W |
| Maximum Operating Junction Temperature, T_J | $+150^\circ C$ |

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------------|---------------|---|-----|-----|-----------|----------|
| Drain-Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D = 10mA, V_{GS} = 0$ | 500 | - | - | V |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS} = 10V, I_D = 1mA$ | 2.1 | 3.0 | 4.0 | V |
| Drain-Source On Resistance | $R_{DS(on)}$ | $V_{GS} = 10V, I_D = 5A$ | - | 0.5 | 0.67 | Ω |
| Diode Forward Voltage | V_{SD} | $I_F = 10A, V_{GS} = 0$ | - | 1.1 | 1.7 | V |
| Gate-Body Leakage Current | I_{GSS} | $V_{DS} = 0, V_{GS} = \pm 20V$ | - | - | ± 100 | nA |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS} = 500V, V_{GS} = 0$ | - | - | 500 | μA |
| Turn-On Time | t_{on} | $V_{GS} = 10V, I_D = 2.8A,$ $R_L = 50\Omega$ | - | 130 | 195 | ns |
| Turn-Off Time | t_{off} | | - | 440 | 570 | ns |

