

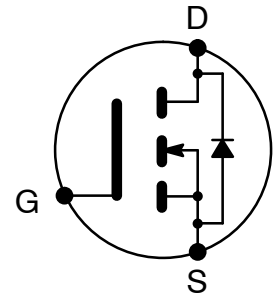


ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE2974 MOSFET N-Channel, Enhancement Mode High Speed Switch TO220 Isolated Type Package

**Features:**

- Low On-State Resistance:  $R_{DS(on)} = 1.1 \rightarrow \text{Max}$  ( $V_{GS} = 10V, I_D = 3A$ )
- Low Input Capacitance:  $C_{iss} = 1150pF$  Typ
- High Avalanche Capability Ratings
- Isolated TO220 Type Package



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

Drain-to-Source Voltage, $V_{DS}$	600V
Gate-to-Source Voltage, $V_{GS}$	$\pm 30V$
Drain Current, $I_D$	
DC	$\pm 6.0A$
Pulse (Note 1)	$\pm 24A$
Total Power Dissipation, $P_T$	
$T_C = +25^\circ C$	35W
$T_A = +25^\circ C$	2.0W
Single Avalanche Current (Note 2), $I_{AS}$	6.0A
Single Avalanche Energy (Note 2), $E_{AS}$	12mJ
Channel Temperature, $T_{ch}$	$+150^\circ C$
Storage Temperature Range, $T_{stg}$	$-55^\circ$ to $+150^\circ C$

Note 1.  $PW \leq 10\mu s$ , Duty Cycle  $\leq 1\%$ .

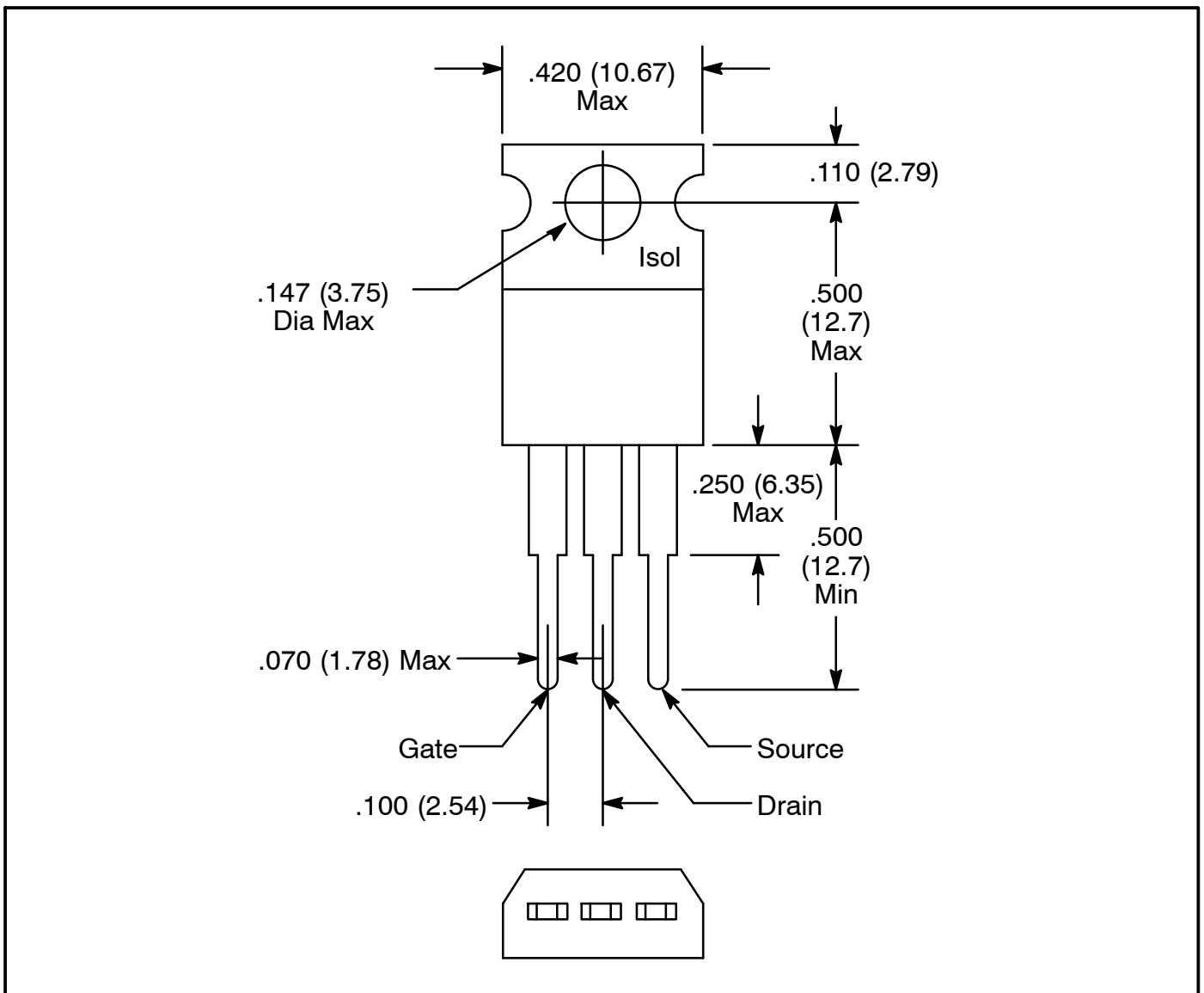
Note 2. Starting  $T_{ch} = +25^\circ C$ ,  $R_G = 25\Omega$ ,  $V_{GS} = 20V \rightarrow 0$ .

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-to-Source On-State Resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 3A$	-	0.8	1.1	$\rightarrow$
Gate-to-Source Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	2.5	-	3.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V, I_D = 3A$	2.0	-	-	S
Drain Leakage Current	$I_{DSS}$	$V_{DS} = 600V, V_{GS} = 0$	-	-	100	$\mu A$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30V, V_{DS} = 0$	-	-	$\pm 100$	nA

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	$C_{iss}$	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$	-	1150	-	pF
Output Capacitance	$C_{oss}$		-	260	-	pF
Reverse Transfer Capacitance	$C_{rss}$		-	60	-	pF
Turn-On Delay Time	$t_{d(on)}$	$V_{GS} = 10\text{V}, V_{DD} = 150\text{V}, I_D = 3\text{A}, R_G = 10 \rightarrow, R_L = 37.5 \rightarrow$	-	15	-	ns
Rise Time	$t_r$		-	15	-	ns
Turn-Off Delay Time	$t_{d(off)}$		-	75	-	ns
Fall Time	$t_f$		-	13	-	ns
Total Gate Charge	$Q_G$	$V_{GS} = 10\text{V}, I_D = 6\text{A}, V_{DD} = 480\text{V}$	-	40	-	nC
Gate-to-Source Charge	$Q_{GS}$		-	6	-	nC
Gate-to-Drain Charge	$Q_{GD}$		-	20	-	nC
Diode Forward Voltage	$V_{F(S-D)}$	$I_F = 6\text{A}, V_{GS} = 0$	-	1.0	-	V
Reverse Recovery Time	$t_{rr}$	$I_F = 6\text{A}, di/dt = 50\text{A}/\mu\text{s}$	-	370	-	ns
Reverse Recovery Charge	$Q_{rr}$		-	1.5	-	$\mu\text{C}$



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [MOSFET](#) category:*

*Click to view products by [NTE](#) manufacturer:*

Other Similar products are found below :

[614233C](#) [648584F](#) [MCH3443-TL-E](#) [MCH6422-TL-E](#) [FDPF9N50NZ](#) [FW216A-TL-2W](#) [FW231A-TL-E](#) [APT5010JVR](#) [NTNS3A92PZT5G](#)  
[IRF100S201](#) [JANTX2N5237](#) [2SK2464-TL-E](#) [2SK3818-DL-E](#) [FCA20N60\\_F109](#) [FDZ595PZ](#) [STD6600NT4G](#) [FSS804-TL-E](#) [2SJ277-DL-E](#)  
[2SK1691-DL-E](#) [2SK2545\(Q,T\)](#) [405094E](#) [423220D](#) [MCH6646-TL-E](#) [TPCC8103,L1Q\(CM](#) [367-8430-0972-503](#) [VN1206L](#) [424134F](#)  
[026935X](#) [051075F](#) [SBVS138LT1G](#) [614234A](#) [715780A](#) [NTNS3166NZT5G](#) [751625C](#) [873612G](#) [IRF7380TRHR](#) [IPS70R2K0CEAKMA1](#)  
[RJK60S3DPP-E0#T2](#) [RJK60S5DPK-M0#T0](#) [APT5010JVFR](#) [APT12031JFLL](#) [APT12040JVR](#) [DMN3404LQ-7](#) [NTE6400](#) [JANTX2N6796U](#)  
[JANTX2N6784U](#) [JANTXV2N5416U4](#) [SQM110N05-06L-GE3](#) [SIHF35N60E-GE3](#) [2SK2614\(TE16L1,Q\)](#)