

# NTMD3N08, NTMD3N08L

## Product Preview

### 80 V Power MOSFET

ON Semiconductor utilizes its latest MOSFET technology process to manufacture 80 V power MOSFET devices to achieve the lowest possible on-resistance per silicon area. These 80 V devices are designed for Power Management solutions in 42 V Automotive system applications. Typical applications include integrated starter alternator, electronic power steering, electronic fuel injection, catalytic converter heaters and other high power applications made possible via an automotive 42 V bus. ON Semiconductor's latest technology offering continues to offer high avalanche energy capability and low reverse recovery losses.

#### ELECTRICAL CHARACTERISTICS

( $T_J = 25^\circ\text{C}$  unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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#### OFF CHARACTERISTICS

Drain-to-Source Breakdown Voltage ( $V_{GS} = 0\text{ Vdc}$ , $I_D = 250\text{ }\mu\text{Adc}$ )	$V_{(BR)DSS}$	80	—	—	Vdc
Zero Gate Voltage Drain Current ( $V_{DS} = 80\text{ Vdc}$ , $V_{GS} = 0\text{ Vdc}$ ) ( $V_{DS} = 80\text{ Vdc}$ , $V_{GS} = 0\text{ Vdc}$ , $T_J = 150^\circ\text{C}$ )	$I_{DSS}$	—	—	1.0 10	$\mu\text{Adc}$
Gate-Body Leakage Current ( $V_{GS} = \pm 20\text{ Vdc}$ , $V_{DS} = 0\text{ Vdc}$ )	$I_{GSS}$	—	—	$\pm 100$	nAdc

#### ON CHARACTERISTICS

Gate Threshold Voltage ( $V_{DS} = V_{GS}$ , $I_D = 250\text{ }\mu\text{Adc}$ ) NTMD3N08 NTMD3N08L	$V_{GS(th)}$	2.0 1.0	3.0 2.0	4.0 3.0	Vdc
Static Drain-to-Source On-Resistance ( $I_D = 1.5\text{ Adc}$ ) NTMD3N08, $V_{GS} = 10\text{ V}$ NTMD3N08L, $V_{GS} = 5\text{ V}$	$R_{DS(on)}$	— —	185 200	— —	$\text{m}\Omega$



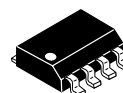
ON Semiconductor

<http://onsemi.com>

3 AMPERES

3N08 Typ  $R_{DS(on)} = 185\text{ m}\Omega$

3N08L Typ  $R_{DS(on)} = 200\text{ m}\Omega$



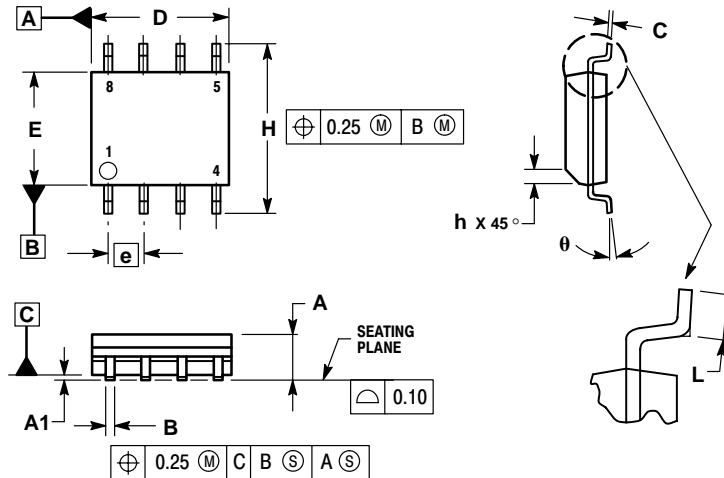
DUAL SO-8  
CASE 751  
STYLE 11

This document contains information on a product under development. ON Semiconductor reserves the right to change or discontinue this product without notice.

# NTMD3N08, NTMD3N08L

## PACKAGE DIMENSIONS

DUAL SO-8  
CASE 751-06  
ISSUE T




### NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. DIMENSIONS ARE IN MILLIMETER.
3. DIMENSION D AND E DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 PER SIDE.
5. DIMENSION B DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 TOTAL IN EXCESS OF THE B DIMENSION AT MAXIMUM MATERIAL CONDITION.

MILLIMETERS		
DIM	MIN	MAX
A	1.35	1.75
A1	0.10	0.25
B	0.35	0.49
C	0.19	0.25
D	4.80	5.00
E	3.80	4.00
e	1.27 BSC	
H	5.80	6.20
h	0.25	0.50
L	0.40	1.25
θ	0°	7°

### STYLE 11:

- PIN 1: SOURCE 1  
2: GATE 1  
3: SOURCE 2  
4: GATE 2  
5: DRAIN 2  
6: DRAIN 2  
7: DRAIN 1  
8: DRAIN 1

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