

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°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Drain-to-Source Breakdown Voltage (V _{GS} = 0 Vdc, I _D = 250 μAdc)	V _{(BR)DSS}	80	—	—	Vdc
Zero Gate Voltage Drain Current (V _{DS} = 80 Vdc, V _{GS} = 0 Vdc) (V _{DS} = 80 Vdc, V _{GS} = 0 Vdc, T _J = 150°C)	I _{DSS}	—	—	1.0 10	μAdc
Gate-Body Leakage Current (V _{GS} = ±20 Vdc, V _{DS} = 0 Vdc)	I _{GSS}	—	—	±100	nAdc

ON CHARACTERISTICS

Gate Threshold Voltage (V _{DS} = V _{GS} , I _D = 250 μAdc) 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 Adc) NTMD3N08, V _{GS} = 10 V NTMD3N08L, V _{GS} = 5 V	R _{DS(on)}	— —	185 200	— —	mΩ



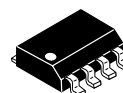
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3 AMPERES

3N08 Typ R_{DS(on)} = 185 mΩ

3N08L Typ R_{DS(on)} = 200 mΩ



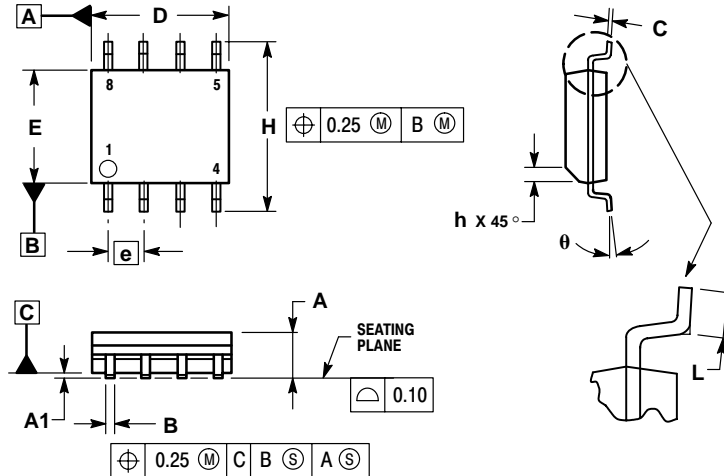
DUAL SO-8
CASE 751
STYLE 11

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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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