

NTD20N08, NTD20N08L

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) NTD20N08 NTD20N08L	V _{GS(th)}	2.0 1.0	3.0 1.5	4.0 2.0	Vdc
Static Drain-to-Source On-Resistance (I _D = 10.0 Adc) NTD20N08, V _{GS} = 10 V NTD20N08L, V _{GS} = 5 V	R _{DS(on)}	— —	60 66	— —	mΩ



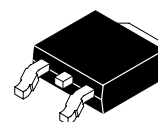
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20 AMPERES

20N08 Typ R_{DS(on)} = 60 mΩ

20N08L Typ R_{DS(on)} = 66 mΩ



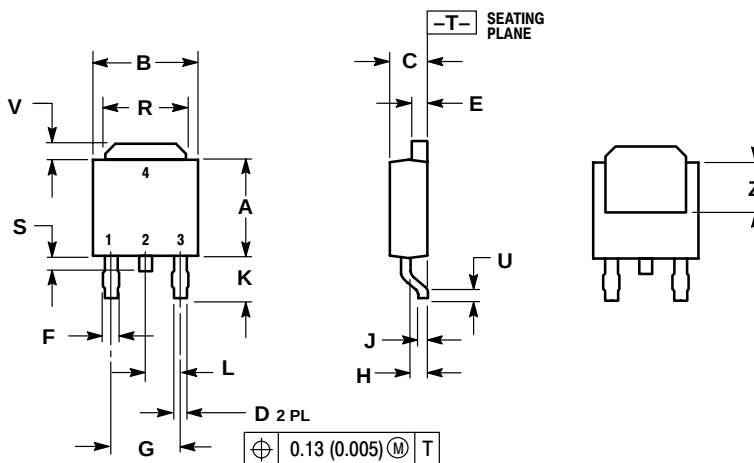
DPACK
CASE 369A
STYLE 2

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

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PACKAGE DIMENSIONS

DPAK
CASE 369A-13
ISSUE AA



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.235	0.250	5.97	6.35
B	0.250	0.265	6.35	6.73
C	0.086	0.094	2.19	2.38
D	0.027	0.035	0.69	0.88
E	0.033	0.040	0.84	1.01
F	0.037	0.047	0.94	1.19
G	0.180 BSC		4.58 BSC	
H	0.034	0.040	0.87	1.01
J	0.018	0.023	0.46	0.58
K	0.102	0.114	2.60	2.89
L	0.090 BSC		2.29 BSC	
R	0.175	0.215	4.45	5.46
S	0.020	0.050	0.51	1.27
U	0.020	---	0.51	---
V	0.030	0.050	0.77	1.27
Z	0.138	---	3.51	---

STYLE 2:

- PIN 1. GATE
2. DRAIN
3. SOURCE
4. DRAIN

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