

NTF3N08, NTF3N08L

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) NTF3N08 NTF3N08L	V _{GS(th)}	2.0 1.0	3.0 1.5	4.0 2.0	Vdc
Static Drain-to-Source On-Resistance (I _D = 1.5 Adc) NTF3N08, V _{GS} = 10 V NTF3N08L, V _{GS} = 5 V	R _{DS(on)}	— —	140 155	— —	mΩ



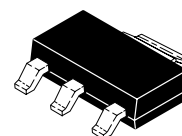
ON Semiconductor

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3 AMPERES

3N08 Typ R_{DS(on)} = 140 mΩ

3N08L Typ R_{DS(on)} = 155 mΩ



SOT-223
CASE 318E
STYLE 3

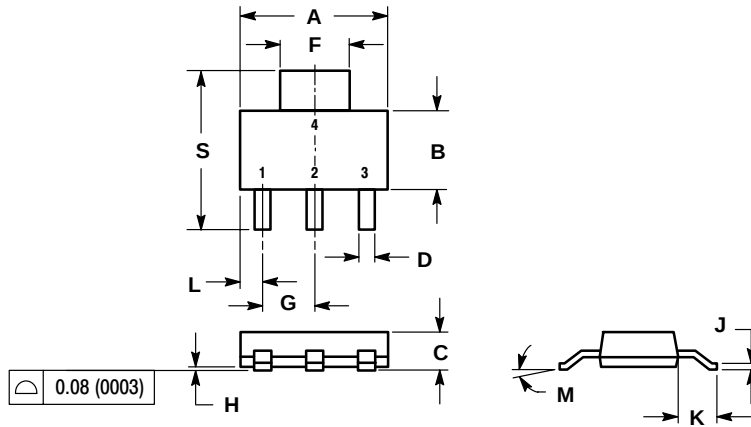
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PACKAGE DIMENSIONS

SOT-223 (TO-261)
CASE 318E-04
ISSUE K



NOTES:

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

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.249	0.263	6.30	6.70
B	0.130	0.145	3.30	3.70
C	0.060	0.068	1.50	1.75
D	0.024	0.035	0.60	0.89
F	0.115	0.126	2.90	3.20
G	0.087	0.094	2.20	2.40
H	0.0008	0.0040	0.020	0.100
J	0.009	0.014	0.24	0.35
K	0.060	0.078	1.50	2.00
L	0.033	0.041	0.85	1.05
M	0°	10°	0°	10°
S	0.264	0.287	6.70	7.30

STYLE 3:

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

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