

H20N80R2

N-Channel Enhancement Mode MOSFET

The **H20N80R2** uses advanced trench technology to provide excellent $R_{DS(on)}$. Low gate charge, This device is suitable for use in E-Cigarettes or other general applications.

Features and Benefits:

- Low On-Resistance
- High Dense Design
- Reliable and Rugged

Applications:

- E-Cigarettes
- Battery management
- Portable appliances
- Load Switch

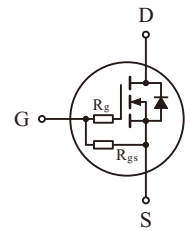
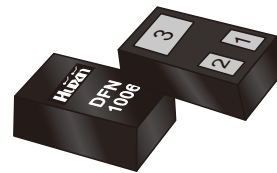
$$V_{DS}=20V, I_D=0.8A$$

$$R_{DS(on)}=80m\Omega (V_{GS}=4.5V, Typ)$$

$$R_{DS(on)}=110m\Omega (V_{GS}=2.5V, Typ)$$

$$V_{GS(th)}=0.65V (Typ)$$

DFN1006-3L



1. Gate
2. Source
3. Drain

Package Information

Product Name	Package	Packing	Qty.
H20N80R2	DFN1006-3L	Tape&Reel	10000PCS

Maximun Ratings ($T_J=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbols	Value	Unit
Drain-Source Voltage	V_{DSS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current, $V_{GS}=4.5V$	I_D	0.8	A
Pulsed drain current (Note1)	I_{DM}	3.2	A
Power dissipation, $T_A=25^\circ\text{C}$	P_D	120	mW
Thermal Resistance from Junction to Ambient (Note2)	$R_{\theta JA}$	1042	$^\circ\text{C/W}$
Operating Junction and Storage Temperature	T_J, T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note:

(1) Pulse Test: Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

(2) Surface Mounted on FR4 Board.

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbols	Parameter	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)DSS}$	Drain-Source breakdown voltage	20	—	—	V	$V_{GS}=0, I_D=250\mu\text{A}$
$V_{GS(th)}$	Gate threshold voltage	0.45	0.65	0.90	V	$V_{GS}=V_{DS}, I_D=250\mu\text{A}$
$R_{DS(on)}$	Drain-Source on-State resistance	—	80	104	$\text{m}\Omega$	$V_{GS}=4.5\text{V}, I_D=0.5\text{A}$
		—	110	144	$\text{m}\Omega$	$V_{GS}=2.5\text{V}, I_D=0.5\text{A}$
I_{DSS}	Zero gate voltage drain current	—	—	1	μA	$V_{DS}=20\text{V}, V_{GS}=0, T_J=25^{\circ}\text{C}$
I_{GSS}	Gate-Source leakage current	± 1	—	± 20	μA	$V_{DS}=0, V_{GS}=\pm 12\text{V}$
R_g	Gate resistor	—	120	—	Ω	$f=1\text{MHz}$, open drain
R_{gs}	Gate-Source pull-down resistor	—	1.0	—	$\text{M}\Omega$	

Body Diode Characteristics

Symbols	Parameter	Min.	Typ.	Max.	Unit	Test Conditions
V_{SD}	Diode Forward Voltage	—	—	1.0	V	$V_{GS}=0, I_S=0.5\text{A}$
I_{SD}	Body Diode Forward Current	—	—	0.8	A	

Package Information

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Dimensions in millimeters

