Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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4V Drive Nch MOS FET

RHU003N03

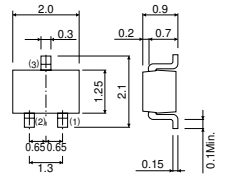
●Structure
Silicon N-channel MOS FET

●Features
1) Low On-resistance.
2) 4V drive.

●Applications
Switching

●External dimensions (Unit : mm)

UMT3



(1) Source
(2) Gate
(3) Drain

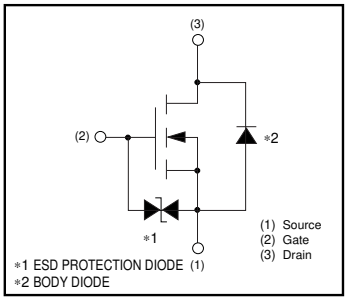
Each lead has same dimensions

Abbreviated symbol : MN

●Packaging specifications

Type	Package	Taping
	Code	T106
	Basic ordering unit (pieces)	3000
RHU003N03		○

●Inner circuit



●Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Drain-source voltage		V_{DSS}	30	V
Gate-source voltage		V_{GSS}	±20	V
Drain current	Continuous	I_D	±300	mA
	Pulsed	I_{DP} ∗1	±1.2	A
Total power dissipation		P_D ∗2	200	mW
Channel temperature		Tch	150	°C
Range of storage temperature		Tstg	−55 to +150	°C

∗1 Pw≤10μs, Duty cycle≤1%
∗2 Each terminal mounted on a recommended land

●Thermal resistance

Parameter	Symbol	Limits	Unit
Channel to ambient	Rth(ch-a) ∗	625	°C/W

∗ Each terminal mounted on a recommended land

●**Electrical characteristics** (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Gate-source leakage	I_{GSS}	–	–	±10	μA	V_{GS}=±20V, V_{DS}=0V
Drain-source breakdown voltage	$V_{(BR)\ DSS}$	30	–	–	V	I_D= 1mA, V_{GS}=0V
Zero gate voltage drain current	I_{DSS}	–	–	1	μA	V_{DS}= 30V, V_{GS}=0V
Gate threshold voltage	$V_{GS\ (th)}$	1.0	–	2.5	V	V_{DS}= 10V, I_D= 1mA
Static drain-source on-state resistance	$R_{DS\ (on)}$*	–	0.8	1.2	Ω	I_D= 300mA, V_{GS}= 10V
		–	1.2	1.9	Ω	I_D= 300mA, V_{GS}= 4.5V
		–	1.4	2.3	Ω	I_D= 300mA, V_{GS}= 4V
Forward transfer admittance	$\|Y_{fs}\|$ *	0.2	–	–	S	V_{DS}= 10V, I_D= 300mA
Input capacitance	C_{iss}	–	20	–	pF	V_{DS}= 10V
Output capacitance	C_{oss}	–	13	–	pF	V_{GS}=0V
Reverse transfer capacitance	C_{rss}	–	4	–	pF	f=1MHz
Turn-on delay time	$t_{d\ (on)}$ *	–	7	–	ns	V_{DD}≒ 15V
Rise time	t_r *	–	6	–	ns	I_D= 150mA
Turn-off delay time	$t_{d\ (off)}$ *	–	9	–	ns	V_{GS}= 10V R_L=100Ω
Fall time	t_f *	–	40	–	ns	R_G=10Ω

*Pulsed

●**Body diode characteristics** (Source-drain) (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{SD}	–	–	1.2	V	I_S= 0.16A, V_{GS}=0V

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