4V Drive Nch MOS FET RHU003N03

●Structure

Silicon N-channel MOS FET

●Features

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

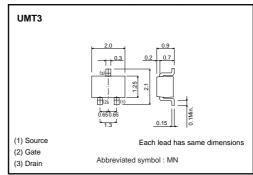
Applications

Switching

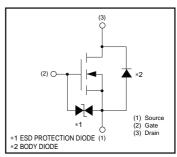
Packaging specifications

	Package	Taping
Type	Code	T106
	Basic ordering unit (pieces)	3000
RHU003N0	0	

●External dimensions (Unit : mm)



•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	IDP *1	±1.2	Α	
Total power dissipation		P _D *2	200	mW	
Channel temperature		Tch	150	°C	
Range of storage temperature		Tstg	-55 to +150	°C	

●Thermal resistance

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

^{*} Each terminal mounted on a recommended land

^{*1} Pw≤10μs, Duty cycle≤1% *2 Each terminal mounted on a recommended land

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Gate-source leakage	Igss	-	_	±10	μА	Vgs=±20V, Vps=0V
Drain-source breakdown voltage	V _{(BR) DSS}	30	_	_	V	I _D = 1mA, V _{GS} =0V
Zero gate voltage drain current	I _{DSS}	-	_	1	μΑ	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	Ciss	_	20	_	pF	V _{DS} = 10V
Output capacitance	Coss	_	13	_	pF	Vgs=0V
Reverse transfer capacitance	Crss	_	4	_	pF	f=1MHz
Turn-on delay time	t _{d (on)} *	-	7	_	ns	V _{DD} ≒ 15V
Rise time	tr *	_	6	_	ns	ID= 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.	Тур.	Max.	Unit	Conditions
Forward voltage	Vsp	_	-	1.2	V	I _S = 0.16A, V _{GS} =0V

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