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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.

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2.5V Drive Nch MOS FET

RJP020N06

●Structure

Silicon N-channel MOS FET

●Features

- 1) Low On-resistance.
- 2) Low voltage drive (2.5V drive).

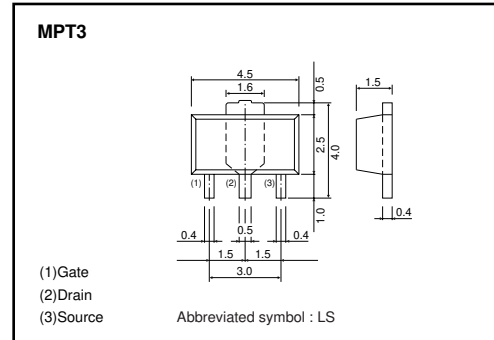
●Applications

Switching

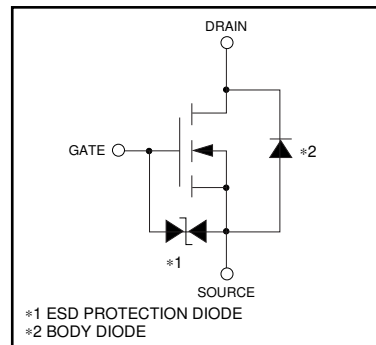
●Packaging specifications

Type	Package	Taping
	Code	T100
	Basic ordering unit (pieces)	1000
RJP020N06		○

●External dimensions (Unit : mm)



●Inner circuit



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Drain-source voltage	V_{DSS}	60	V	
Gate-source voltage	V_{GSS}	± 12	V	
Drain current	Continuous	I_D	± 2.0	A
	Pulsed	I_{DP} *1	± 8.0	A
Source current (Body diode)	Continuous	I_S	2.0	A
	Pulsed	I_{SP} *1	8.0	A
Total power dissipation	P_D	500	mW	
		2 *2	W	
Channel temperature	T_{ch}	150	°C	
Range of storage temperature	T_{stg}	-55 to +150	°C	

*1 $P_w \leq 10\mu s$, Duty cycle $\leq 1\%$

*2 When mounted on a 40×40×0.7mm ceramic board

●Thermal resistance

Parameter	Symbol	Limits	Unit
Channel to ambient	$R_{th(ch-a)}$	250	°C/W
		62.5 *	°C/W

* When mounted on a 40×40×0.7mm ceramic board

Transistors

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Gate-source leakage	I _{GSS}	–	–	±10	μA	V _{GS} = ±12V, V _{DS} =0V
Drain-source breakdown voltage	V _{(BR) DSS}	60	–	–	V	I _D = 1mA, V _{GS} =0V
Zero gate voltage drain current	I _{DSS}	–	–	1	μA	V _{DS} = 60V, V _{GS} =0V
Gate threshold voltage	V _{GS(th)}	0.8	–	1.5	V	V _{DS} = 10V, I _D = 1mA
Static drain-source on-state resistance	R _{DS(on)} *	–	165	240	mΩ	I _D = 2A, V _{GS} = 4.5V
		–	170	250	mΩ	I _D = 2A, V _{GS} = 4V
		–	210	300	mΩ	I _D = 2A, V _{GS} = 2.5V
Forward transfer admittance	Y _{fs} *	1.5	–	–	S	V _{DS} = 10V, I _D = 2A
Input capacitance	C _{iss}	–	160	–	pF	V _{DS} = 10V
Output capacitance	C _{oss}	–	50	–	pF	V _{GS} =0V
Reverse transfer capacitance	C _{rss}	–	45	–	pF	f=1MHz
Turn-on delay time	t _{d(on)} *	–	8	–	ns	V _{DD} ≐30V
Rise time	t _r *	–	18	–	ns	I _D = 1A
Turn-off delay time	t _{d(off)} *	–	40	–	ns	V _{GS} = 4V
Fall time	t _f *	–	20	–	ns	R _L =30Ω
Total gate charge	Q _g *	–	5	10	nC	R _G =10Ω
Gate-source charge	Q _{gs} *	–	1	–	nC	V _{DD} ≐30V
Gate-drain charge	Q _{gd} *	–	2.5	–	nC	V _{GS} = 4V
						I _D = 2A

*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 = 2A, V _{GS} =0V

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