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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.

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!



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Transistors

2.5V Drive Pch MOS FET

RTE002P02

●Structure

Silicon P-channel MOS FET

●Features

- 1) Low On-resistance.
- 2) Small package (EMT3).
- 3) 2.5V drive.

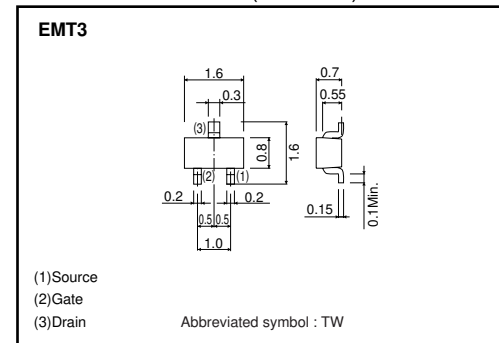
●Applications

Switching

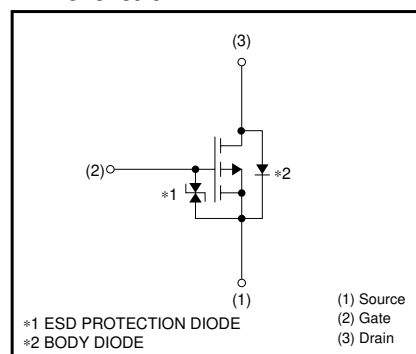
●Package specifications

Type	Package	Taping
	Code	TL
	Basic ordering unit (pieces)	3000
RTE002P02		○

●External dimensions (Unit : mm)



●Inner circuit



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Drain-source voltage	V_{DSS}	-20	V	
Gate-source voltage	V_{GSS}	±12	V	
Drain current	Continuous	I_D	±0.2	A
	Pulsed	I_{DP} *1	±0.4	A
Total power dissipation	P_D *2	0.15	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 Each terminal mounted on a recommended land

●Thermal resistance

Parameter	Symbol	Limits	Unit
Channel to ambient	$R_{th}(ch-a)$ *	833	°C/W

* Each terminal mounted on a recommended land

Transistors

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Gate-source leakage	I_{GSS}	–	–	±10	μA	$V_{GS} = \pm 12V, V_{DS} = 0V$
Drain-source breakdown voltage	$V_{(BR) DSS}$	–20	–	–	V	$I_D = -1mA, V_{GS} = 0V$
Zero gate voltage drain current	I_{DSS}	–	–	–1	μA	$V_{DS} = -20V, V_{GS} = 0V$
Gate threshold voltage	$V_{GS(th)}$	–0.7	–	–2.0	V	$V_{DS} = -10V, I_D = -1mA$
Static drain-source on-state resistance	$R_{DS(on)}$ *	–	1.0	1.5	Ω	$I_D = -0.2A, V_{GS} = -4.5V$
		–	1.1	1.6	Ω	$I_D = -0.2A, V_{GS} = -4V$
		–	2.0	3.0	Ω	$I_D = -0.15A, V_{GS} = -2.5V$
Forward transfer admittance	$ Y_{fs} $ *	0.2	–	–	S	$V_{DS} = -10V, I_D = -0.15A$
Input capacitance	C_{iss}	–	50	–	pF	$V_{DS} = -10V$
Output capacitance	C_{oss}	–	5	–	pF	$V_{GS} = 0V$
Reverse transfer capacitance	C_{rss}	–	5	–	pF	$f = 1MHz$
Turn-on delay time	$t_{d(on)}$ *	–	9	–	ns	$V_{DD} = -15V$
Rise time	t_r *	–	6	–	ns	$I_D = -0.15A$
Turn-off delay time	$t_{d(off)}$ *	–	35	–	ns	$V_{GS} = -4.5V$
Fall time	t_f *	–	45	–	ns	$R_L = 100\Omega$ $R_G = 10\Omega$

*Pulsed

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{SD}	–	–	–1.2	V	$I_S = -0.1A, V_{GS} = 0V$

Notes

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