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<b>ROHM</b>		PRODUCTS UMT3	TYPE RTU002P02	PAGE 1/3
1. TYPE	RTU002P02			
2. STRUCTURE	SILICON P-CHANNEL MOS FET			
3. APPLICATIONS	SWITCHING			
4. ABSOLUTE MAXIMUM RATINGS [Ta=25 ]				
DRAIN-SOURCE VOLTAGE	V <sub>DSS</sub> . . .	-20V		
GATE-SOURCE VOLTAGE	V <sub>GSS</sub> . . .	± 12V		
DRAIN CURRENT CONTINUOUS	I <sub>D</sub> . . .	± 0.25A		
PULSED	I <sub>DP</sub> . . .	± 0.5A PW 10 μs DUTY CYCLE 1%		
TOTAL POWER DISSIPATION	P <sub>D</sub> . . .	0.2W EACH TERMINAL MOUNTED ON A RECOMMENDED LAND		
CHANNEL TEMPERATURE	T <sub>ch</sub> . . .	150		
RANGE OF STRAGE TEMPERATURE	T <sub>stg</sub> . . .	- 55 ~ 150		
5. THERMAL RESISTANCE				
CHANNEL TO AMBIENT	R <sub>th(ch-a)</sub> . . .	625 /W EACH TERMINAL MOUNTED ON A RECOMMENDED LAND		
DESIGN	CHECK	APPROVAL	DATE : 27/JAN/2003	SPECIFICATION No. TSQ03025H-126
			REV. : 0	<b>ROHM CO., LTD.</b>

## 6. ELECTRICAL CHARACTERISTICS [Ta=25 ]

PARAMETER	ITEM	CONDITION	MIN.	TYP.	MAX.
GATE-SOURCE LEAKAGE	I <sub>GSS</sub>	V <sub>GS</sub> = ± 12V / V <sub>DS</sub> =0V	-	-	± 10 μA
DRAIN-SOURCE BREAKDOWN VOLTAGE	V (BR)DSS	I <sub>D</sub> = -1mA / V <sub>GS</sub> =0V	-20V	-	-
ZERO GATE VOLTAGE DRAIN CURRENT	I <sub>DSS</sub>	V <sub>DS</sub> = -20V / V <sub>GS</sub> =0V	-	-	-1 μA
GATE THRESHOLD VOLTAGE	V <sub>GS</sub> (th)	V <sub>DS</sub> = -10V / I <sub>D</sub> = -1mA	-0.7V	-	-2.0V
STATIC DRAIN-SOURCE ON-STATE RESISTANCE	R <sub>DS(on)</sub> * PULSED	I <sub>D</sub> = -0.25A V <sub>GS</sub> = -4.5V	-	1.0	1.5
		I <sub>D</sub> = -0.25A V <sub>GS</sub> = -4.0V	-	1.1	1.6
		I <sub>D</sub> = -0.15A V <sub>GS</sub> = -2.5V	-	2.0	3.0
FORWARD TRANSFER ADMITTANCE	Y <sub>fs</sub>   * PULSED	V <sub>DS</sub> = -10V I <sub>D</sub> = -0.15A	0.2S	-	-
INPUT CAPACITANCE	C <sub>iss</sub>	V <sub>DS</sub> = -10V / V <sub>GS</sub> =0V f=1MHz	-	50pF	-
OUTPUT CAPACITANCE	C <sub>oss</sub>		-	5pF	-
REVERSE TRANSFER CAPACITANCE	C <sub>rss</sub>		-	5pF	-
TURN-ON DELAY TIME	t <sub>d(on)</sub> * PULSED	I <sub>D</sub> = -0.15A V <sub>DD</sub> -15V V <sub>GS</sub> = -4.5V R <sub>L</sub> 100 R <sub>GS</sub> =10	-	9ns	-
RISE TIME	t <sub>r</sub> * PULSED		-	6ns	-
TURN-OFF DELAY TIME	t <sub>d(off)</sub> * PULSED		-	35ns	-
FALL TIME	t <sub>f</sub> * PULSED		-	45ns	-

## BODY DIODE CHARACTERISTICS (SOURCE-DRAIN CHARACTERISTICS) [Ta=25 ]

PARAMETER	ITEM	CONDITION	MIN.	TYP.	MAX.
FORWARD VOLTAGE	V <sub>SD</sub>	I <sub>S</sub> = -0.1A / V <sub>GS</sub> =0V	-	-	-1.2V

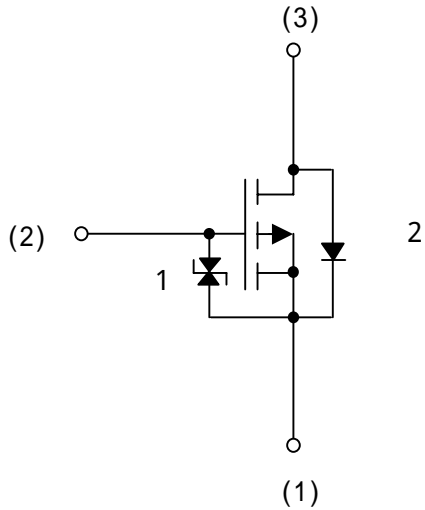


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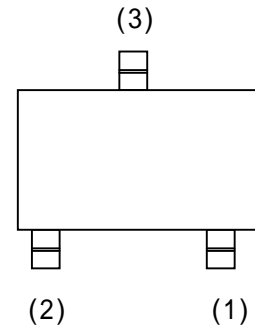
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RTU002P02

PAGE  
3/3

7. INNER CIRCUIT

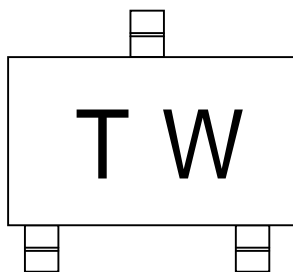


(1) SOURCE  
(2) GATE  
(3) DRAIN



1 ESD PROTECTION DIODE  
2 BODY DIODE

8. MARKING



“ TW ” MEANS RTU002P02.