

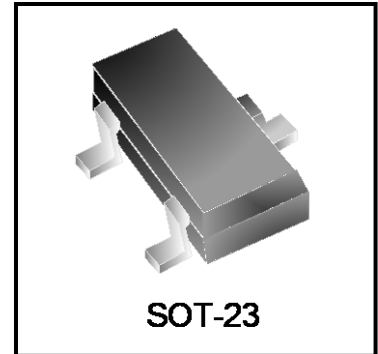


# WM06N01M

## N-Channel MOSFET

### Features

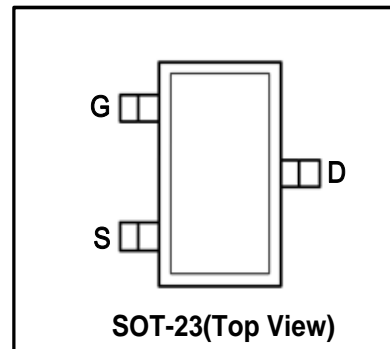
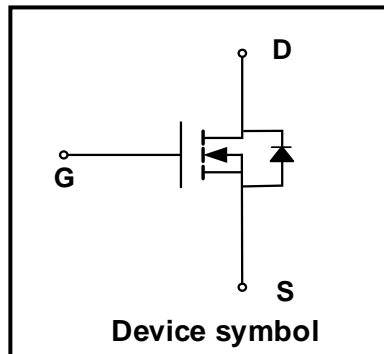
- $V_{DS} = 60\text{ V}$ ,  $I_D = 0.115\text{ A}$   
 $R_{DS(on)} < 3\Omega @ V_{GS} = 10\text{ V}$   
 $R_{DS(on)} < 4\Omega @ V_{GS} = 4.5\text{ V}$
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage
- Halogen and Antimony Free. "Green" Device



### Mechanical Characteristics

- SOT-23 Package
- Marking : Making Code
- RoHS Compliant

### Schematic & PIN Configuration



### Absolute Maximum Rating( $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_D$	0.115	A
Power Dissipation	$P_D$	225	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ( $T_{amb}=25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
<b>Static Characteristics</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS} = 0\text{ V}, I_D = 250\mu\text{A}$	60	-	-	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 60\text{V}, V_{GS} = 0\text{V}$	-	-	100	nA
Gate-body Leakage Current	$I_{GSS}$	$V_{DS} = 0\text{ V}, V_{GS} = \pm 20\text{V}$	-	-	$\pm 1$	$\mu\text{A}$
Drain-Source On-state Resistance <sup>1</sup>	$R_{DS(on)}$	$V_{GS} = 10\text{V}, I_D = 0.1\text{A}$	-	1.6	3	$\Omega$
		$V_{GS} = 4.5\text{V}, I_D = 0.05\text{A}$	-	2.3	4	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	1	1.5	2.5	V
<b>Dynamic Characteristics</b>						
Input Capacitance	$C_{iss}$	$V_{GS} = 0\text{V}, V_{DS} = 25\text{V}, f = 1\text{MHz}$	-	50	-	pF
Output Capacitance	$C_{oss}$		-	25	-	
Reverse Transfer Capacitance	$C_{rss}$		-	5	-	
<b>Switching Characteristics<sup>2</sup></b>						
Turn-On Delay Time	$t_{d(on)}$	$V_{DS} = 25\text{V}, V_{GEN}=10\text{V}, I_D = 0.5\text{A},$ $R_G = 25\Omega, R_L = 50\Omega$	-	20	-	ns
Turn-Off Delay Time	$t_{d(off)}$		-	40	-	
<b>Source-Drain Diode characteristics</b>						
Body Diode Voltage	$V_{SD}$	$I_S = 0.115\text{A}, V_{GS} = 0\text{V}$	-	-	1.2	V

**Notes:**

1. Pulse test: pulse width $\leq 300\mu\text{s}$ , duty cycle $\leq 2\%$
2. These parameters have no way to verify.

Typical Characteristics

Figure 1. Output Characteristics

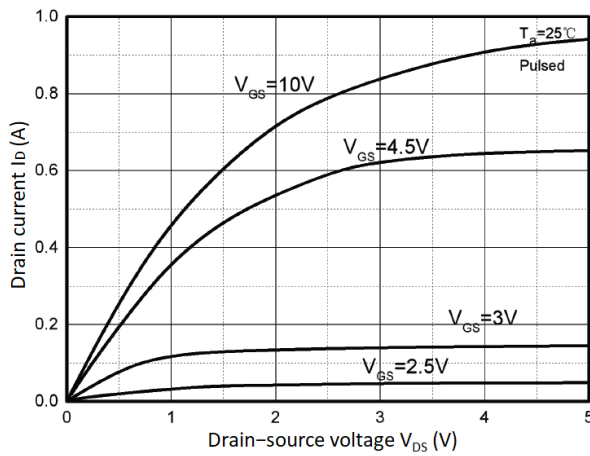


Figure 2. Transfer Characteristics

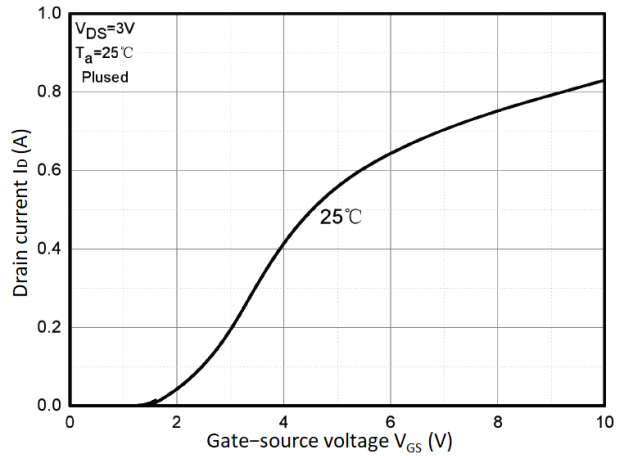


Figure 3.  $R_{DS(ON)}$  vs.  $I_D$

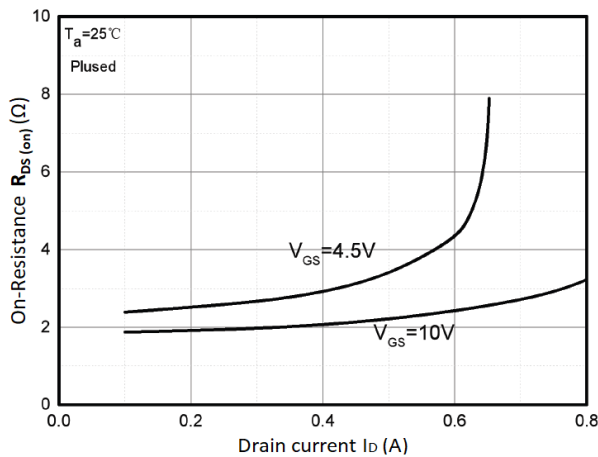


Figure 4.  $R_{DS(ON)}$  vs.  $V_{GS}$

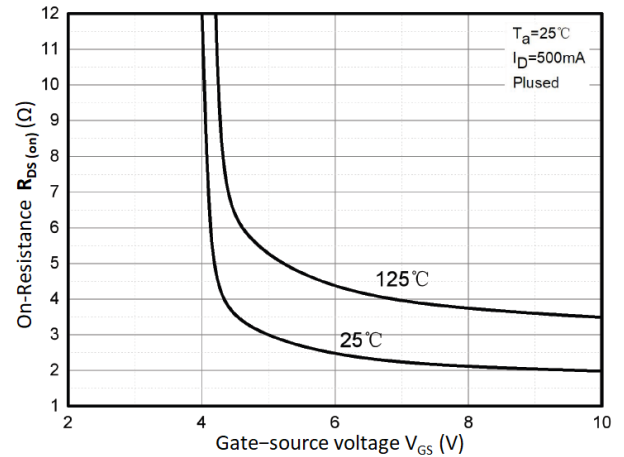


Figure 5.  $I_S$  vs.  $V_{SD}$

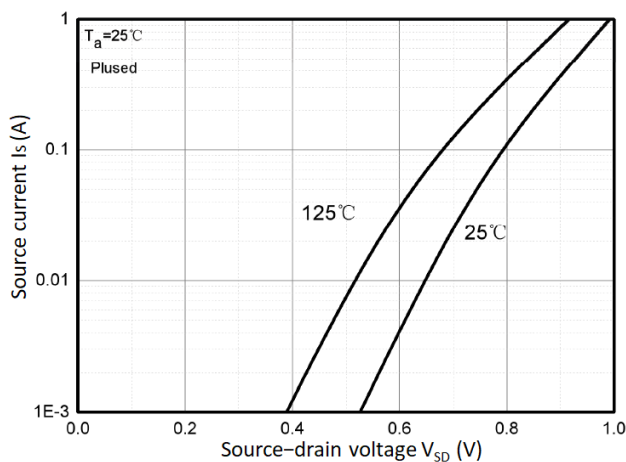
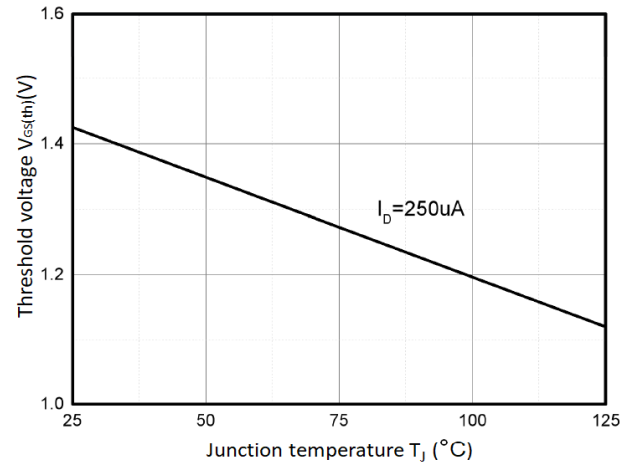


Figure 6.  $V_{GS(TH)}$  vs.  $T_J$



Outline Drawing – SOT-23

### PACKAGE OUTLINE

**SOT-23**

DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.15	0.035	0.045
A1	0.00	0.10	0.000	0.004
b	0.30	0.50	0.012	0.020
c	0.08	0.15	0.003	0.006
D	2.80	3.00	0.110	0.118
E	2.25	2.55	0.089	0.100
E1	1.20	1.40	0.047	0.055
e	0.95 BSC		0.0374 BSC	
e1	1.80	2.00	0.071	0.079
L	0.45	0.65	0.018	0.026
θ	0°	8°	0°	8°

DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.080	2.02
C	0.032	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.9 BSC
b	0.032	0.80

**Notes**

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WM06N01M
Marking Code	

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

No.1001, Shiwan (7) Road, Pudong District, Shanghai, P.R.China.201207

Tel: 86-21-68969993 Fax: 86-21-50757680 Email: [market@way-on.com](mailto:market@way-on.com)

WAYON website: <http://www.way-on.com>

For additional information, please contact your local Sales Representative.

**WAYON**® is registered trademark of Wayon Corporation.

*Specifications are subject to change without notice.  
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
Users should verify actual device performance in their specific applications.*