

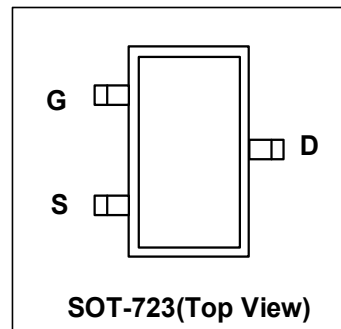
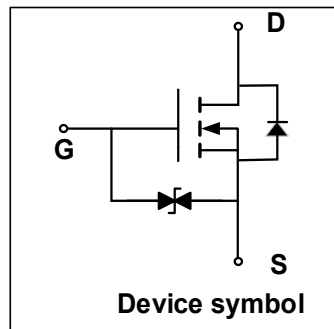
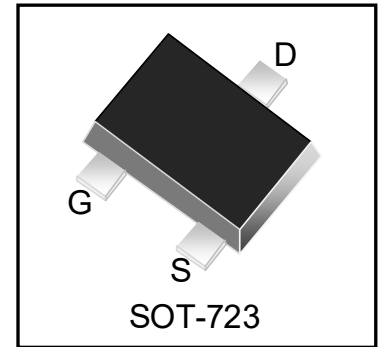
Features

- Way-on Small Signal MOSFETs
- $V_{DS} = 20V$, $I_D = 0.75A$
 $R_{DS(on)} < 0.38\Omega @ V_{GS} = 4.5V$
 $R_{DS(on)} < 0.45\Omega @ V_{GS} = 2.5V$
- Trench LV MOSFET Technology
- ESD Protected

Mechanical Characteristics

- SOT-723 Package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration



Absolute Maximum Rating ($T_A = 25^\circ C$ unless otherwise noted)

Parameter		Symbol	Value	Unit
Drain-Source Voltage		V_{DS}	20	V
Gate-Source Voltage		V_{GS}	± 10	V
Continuous Drain Current	$T_A = 25^\circ C$	I_D	0.75	A
Pulsed Drain Current ¹		I_{DM}	3	A
Power Dissipation	$T_A = 25^\circ C$	P_D	150	mW
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55 to 150	$^\circ C$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance from Junction to Ambient ²	$R_{\theta JA}$	833	$^\circ C/W$

Electrical Characteristics (T_J=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0V, I _D = 250μA	20	-	-	V
Gate-body Leakage Current	I _{GSS}	V _{DS} = 0V, V _{GS} = ±10V	-	-	±20	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =20V, V _{GS} = 0V	-	-	1	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.35	0.75	1.1	V
Drain-Source On-state Resistance ³	R _{DS(on)}	V _{GS} = 4.5V, I _D = 0.65A	-	0.19	0.38	Ω
		V _{GS} = 2.5V, I _D = 0.55A	-	0.29	0.45	
		V _{GS} = 1.8V, I _D = 0.45A	-	0.70	-	
Dynamic Characteristics ⁴						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 10V, f = 1MHz	-	26.5	-	pF
Output Capacitance	C _{oss}		-	11	-	
Reverse Transfer Capacitance	C _{rss}		-	5.2	-	
Switching Characteristics ⁴						
Turn-on Delay Time	t _{d(on)}	V _{GS} =4.5V, V _{DD} =10V, I _D =0.65A, R _G =3Ω	-	6.7	-	ns
Rise Time	t _r		-	4.8	-	
Turn-off Delay Time	t _{d(off)}		-	17.3	-	
Fall Time ⁴	t _f		-	7.4	-	
Source-Drain Diode Characteristics						
Body Diode Voltage	V _{SD}	I _S =0.15A, V _{GS} = 0V	-	-	1.2	V
Continuous Source Current	I _S		-	-	0.75	A

Notes:

1. Repetitive rating, pulse width limited by junction temperature T_{J(MAX)} = 150°C.
2. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper, The value in any given application depends on the user's specific board design.
3. Pulse Test: Pulse width ≤ 300μs, duty cycle ≤ 2%.
4. This value is guaranteed by design hence it is not included in the production test.

Typical Characteristics

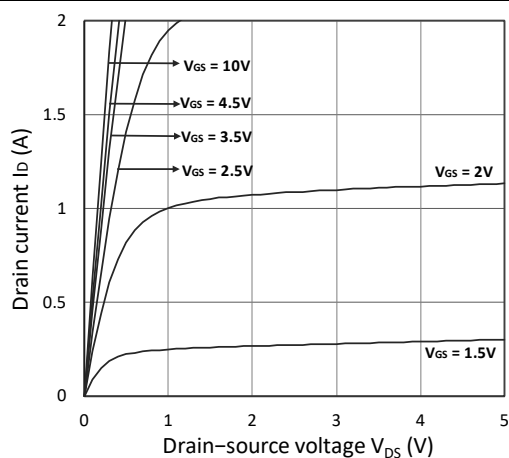


Figure 1. Output Characteristics

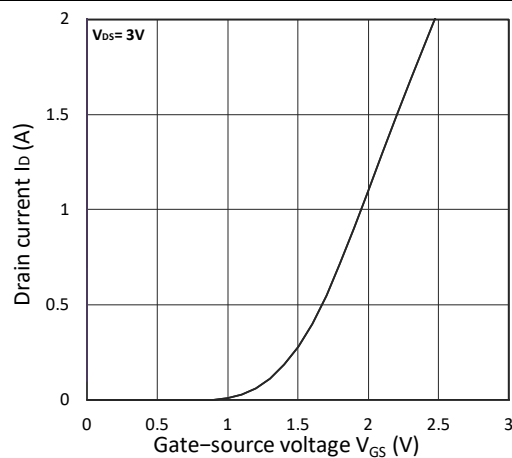


Figure 2. Transfer Characteristics

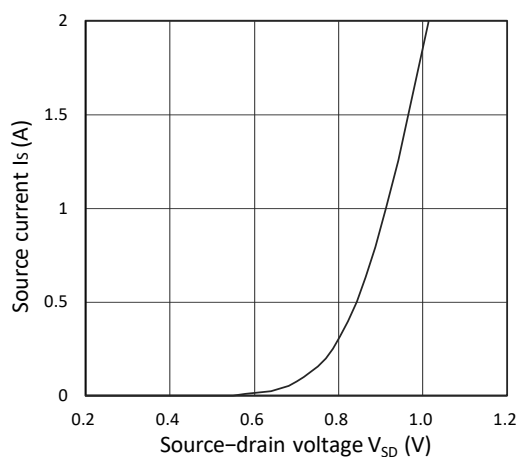


Figure 3. Forward Characteristics of Reverse

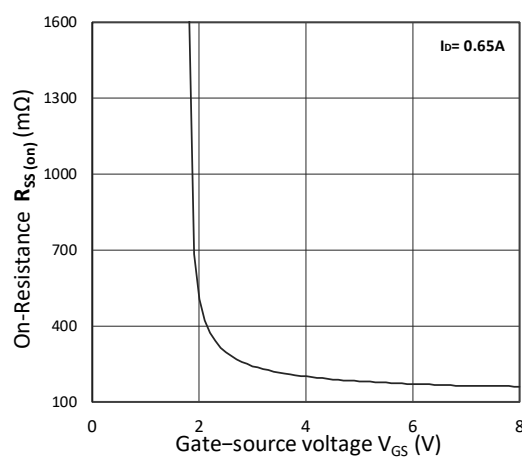
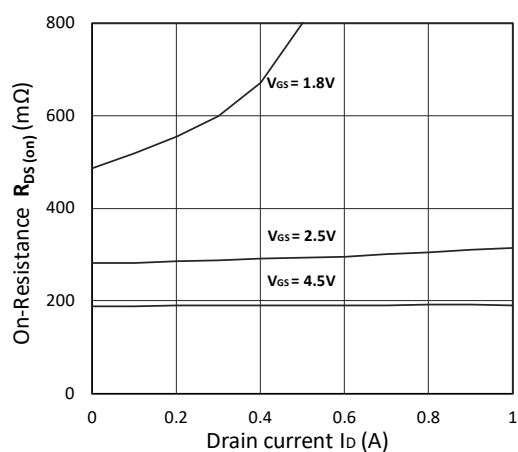
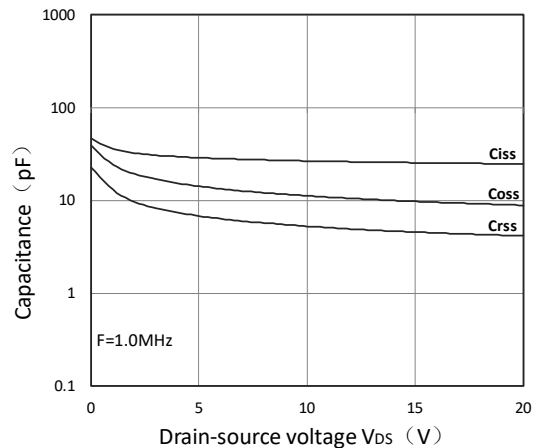
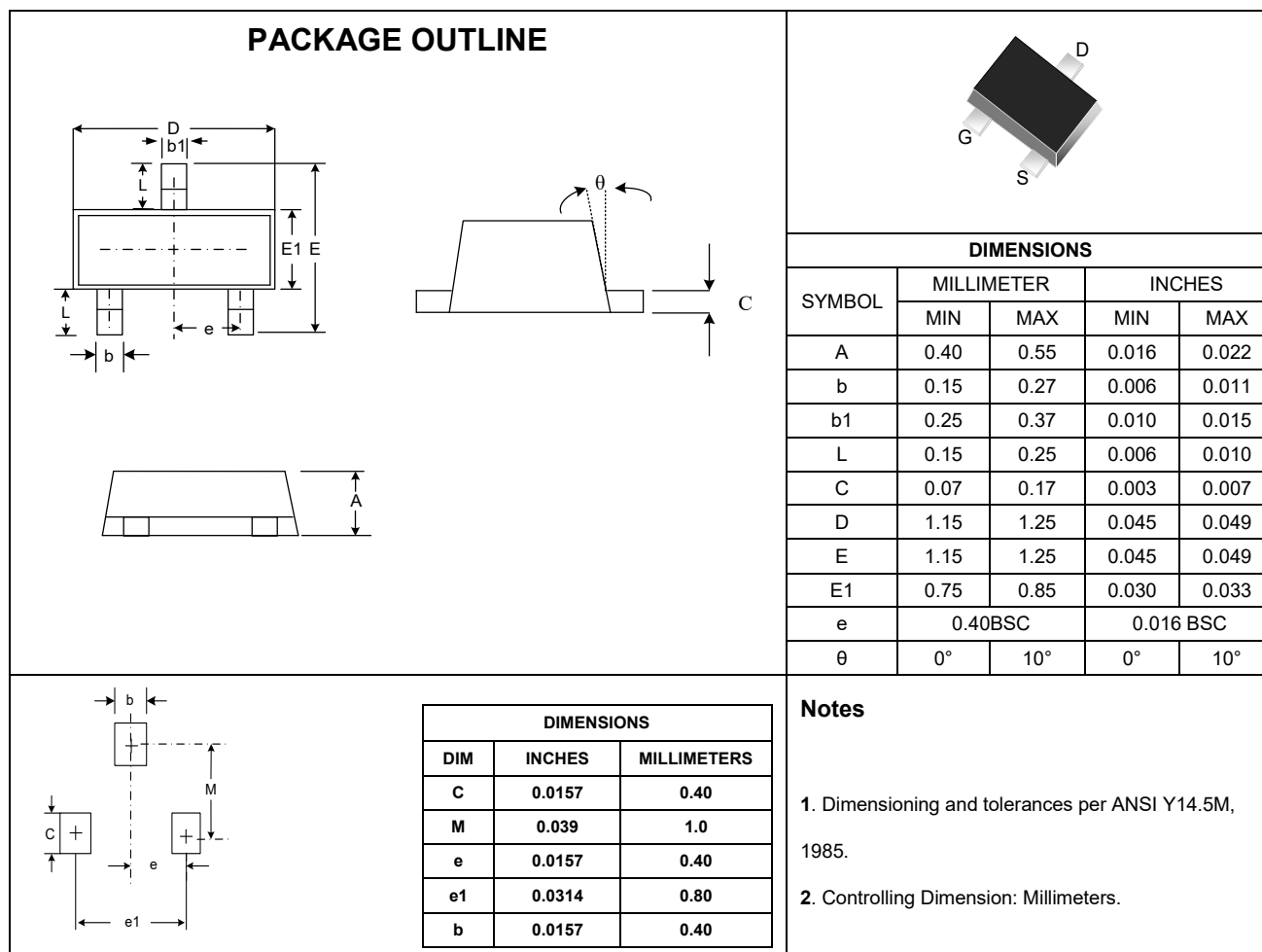
Figure 4. $R_{DS(ON)}$ vs. V_{GS} Figure 5. $R_{DS(ON)}$ vs. I_D 

Figure 6. Capacitance Characteristics

Outline Drawing – SOT-723



Marking Codes

Part Number	WM02N08H
Marking Code	

Package Information

Qty: 8k/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.comWAYON website: <http://www.way-on.com>

For additional information, please contact your local Sales Representative.

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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.