

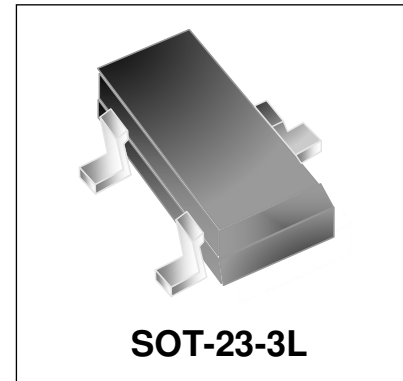
N-Channel MOSFET

Features

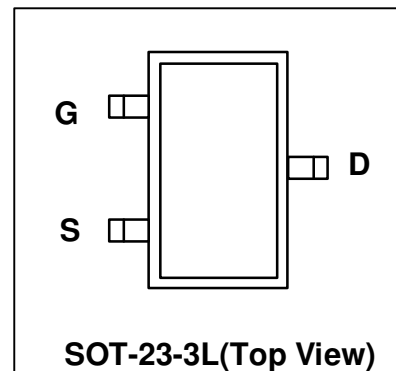
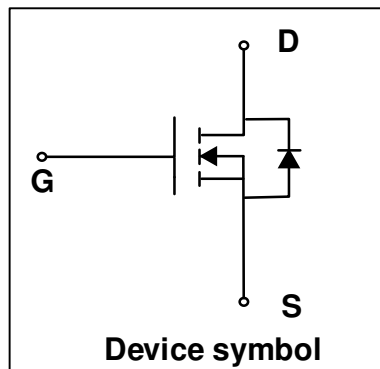
- $V_{DS} = 100V$, $I_D = 3.5A$
 $R_{DS(on)} < 100m\Omega$ @ $V_{GS} = 10V$
 $R_{DS(on)} < 120m\Omega$ @ $V_{GS} = 4.5V$
- Low Gate Charge
- Trench MOSFET Technology

Mechanical Characteristics

- SOT-23-3L Package
- Marking : Making Code
- RoHS Compliant



Schematic & PIN Configuration



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	3.5	A
Pulsed Drain Current ¹	I_{DM}	14	A
Power Dissipation	P_D	1.65	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}C$
Thermal Resistance from Junction to Ambient ²	$R_{\theta JA}$	76	$^{\circ}C/W$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0 V, I _D = 250μA	100	-	-	V
Drain Cut-off Current	I _{DSS}	V _{DS} = 100V, V _{GS} = 0V	-	-	1	μA
Gate Leakage Current	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V	-	-	±100	nA
Gate Threshold Voltage ³	V _{GS(th)}	V _{GS} = V _{DS} , I _D = 250μA	1.4	-	2.4	V
Drain-Source on-state Resistance ³	R _{DS(on)}	V _{GS} = 10V, I _D = 2A	-	78	100	mΩ
		V _{GS} = 4.5V, I _D = 1A	-	92	120	
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 50V, f = 1MHz	-	1035	-	pF
Output Capacitance	C _{oss}		-	32	-	
Reverse Transfer Capacitance	C _{rss}		-	26	-	
Switching Characteristics						
Total gate charge ⁴	Q _g	V _{GS} = 10V, V _{DS} = 50V, I _D = 2A	-	12	-	nC
Gate-source charge ⁴	Q _{gs}		-	3.1	-	
Gate-drain charge ⁴	Q _{gd}		-	2.9	-	
Turn-on Time ⁴	t _{d(on)}	V _{GS} = 10V, V _{DD} = 50V, R _L = 39Ω, R _{GEN} = 1Ω I _D = 1.3A	-	12	-	nS
Rise time ⁴	t _f		-	36	-	
Turn-off Time ⁴	t _{d(off)}		-	17	-	
Fall time ⁴	t _f		-	8.3	-	
Source-Drain Diode characteristics						
Body Diode Voltage	V _{SD}	I _S = 1A, V _{GS} = 0V	-	-	1.2	V

Notes:

1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. Surface mounted on FR4 board using 1 square inch pad size, 1oz single-side copper.
3. Pulse Test: Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
4. Guaranteed by design, not subject to product

Typical Characteristics

Figure 1. Output Characteristics

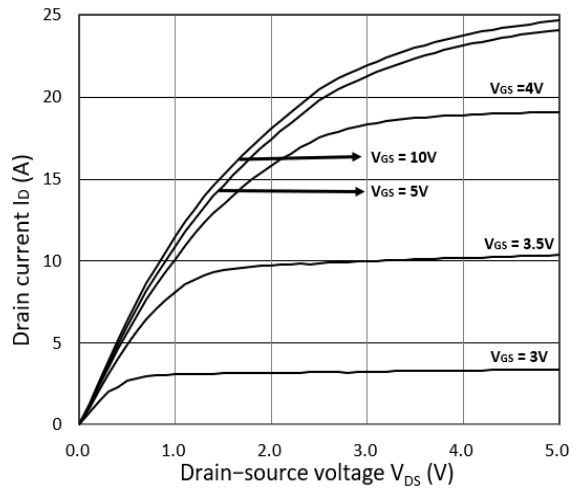


Figure 2. Transfer Characteristics

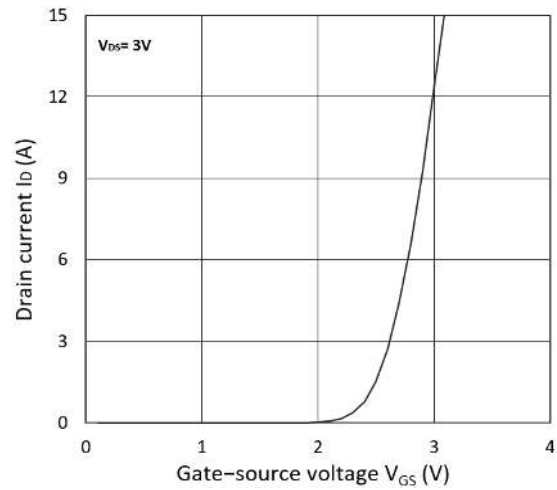
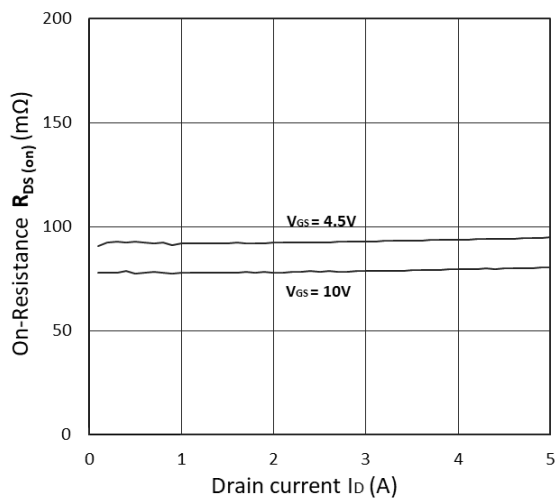
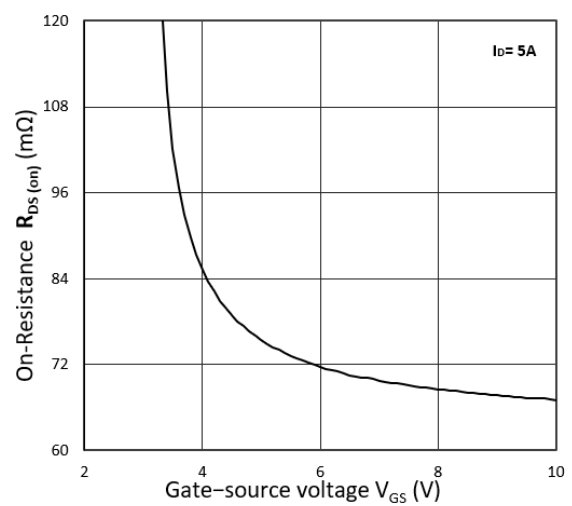
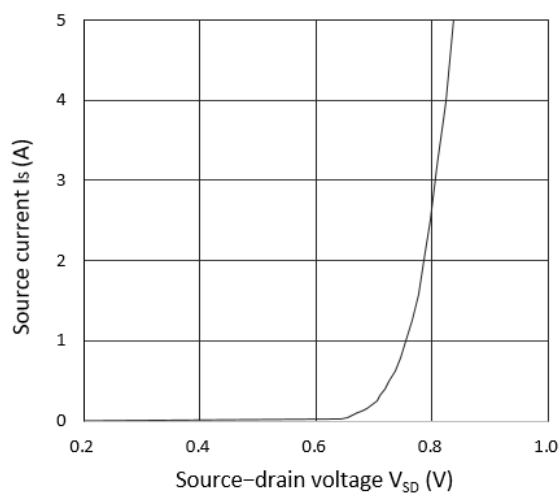
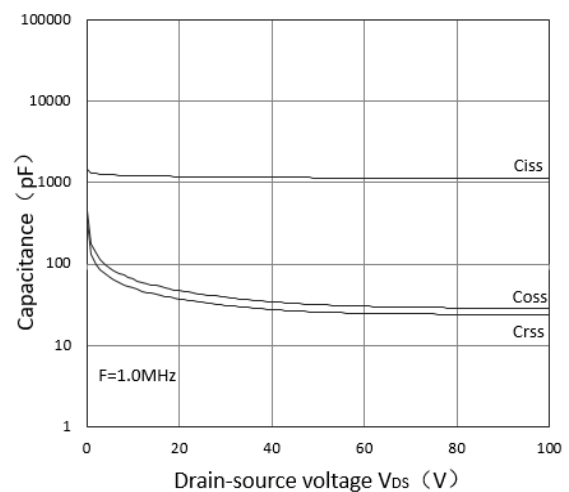
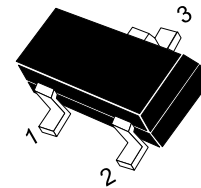
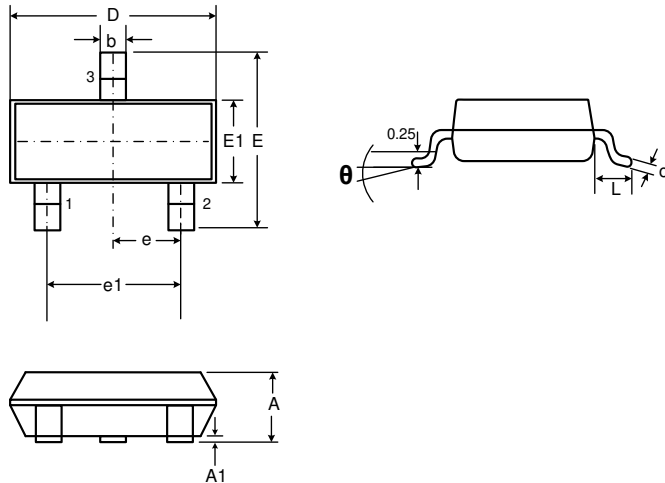
Figure 3. $R_{DS(ON)}$ vs. I_D Figure 4. $R_{DS(ON)}$ vs. V_{GS} Figure 5. I_S vs. V_{SD} 

Figure 6. Capacitance Characteristics



Outline Drawing – SOT-23-3L

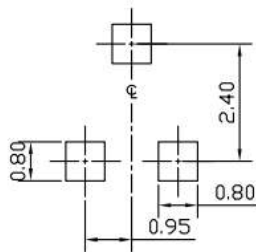
PACKAGE OUTLINE



SOT-23-3L

DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.05	1.15	0.041	0.045
A1	0.00	0.10	0.000	0.004
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.82	3.02	0.111	0.119
E	2.65	2.95	0.104	0.116
E1	1.50	1.70	0.059	0.067
e	0.95 BSC		0.0374 BSC	
e1	1.80	2.00	0.071	0.079
L	0.55	0.75	0.021	0.029
θ	0	8°	0	8°

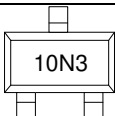


Unit:mm

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WM10N35M2
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.comWAYON website: <http://www.way-on.com>

For additional information, please contact your local Sales Representative.


 ® 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.