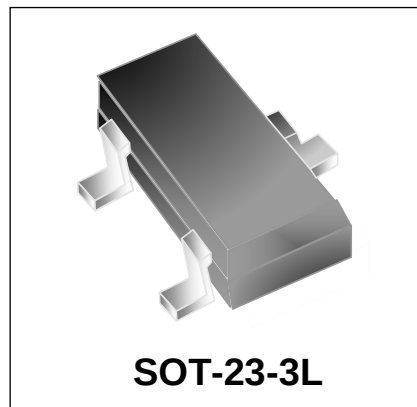


Features

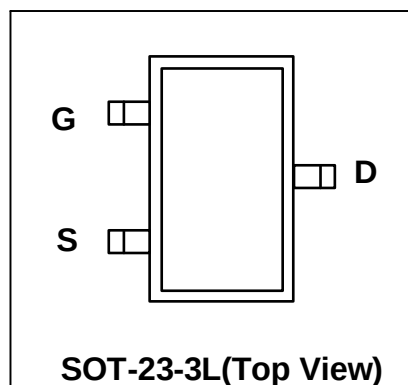
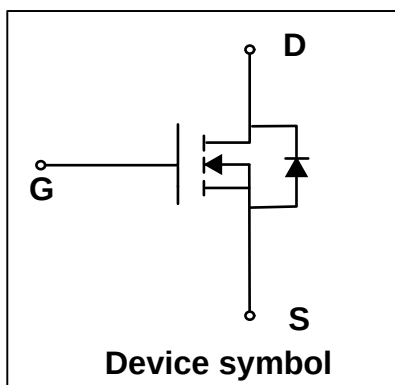
- Way-on Small Signal MOSFETs
- $V_{DS} = 100V$, $I_D = 3.7A$
 $R_{DS(on)} < 122m\Omega$ @ $V_{GS} = 10V$
 $R_{DS(on)} < 139m\Omega$ @ $V_{GS} = 4.5V$
- Trench LV MOSFET Technology

Mechanical Characteristics

- SOT-23-3L 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}	100	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	3.7	A
Pulsed Drain Current ¹	I_{DM}	14.8	A
Power Dissipation	P_D	1.7	W
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	$R_{\theta JA}$	73.5	$^\circ C/W$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Off Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, 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 _{DS} = 0V, V _{GS} = ±20V	-	-	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	1	1.6	2.2	V
Drain-Source on-state Resistance ³	R _{DS(on)}	V _{GS} = 10V, I _D =3.5A	-	97	122	mΩ
		V _{GS} = 4.5V, I _D = 3A	-	107	139	
Dynamic Characteristics ⁴						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 50V, f = 1MHz	-	765	-	pF
Output Capacitance	C _{oss}		-	24.5	-	
Reverse Transfer Capacitance	C _{rss}		-	19.6	-	
Switching Characteristics ⁴						
Total Gate Charge	Q _g	V _{GS} = 10V, V _{DS} = 50V, I _D = 3.5A	-	13.8	-	nC
Gate Source Charge	Q _{gs}		-	1.8	-	
Gate Drain Charge	Q _{gd}		-	2.6	-	
Turn-on Time	t _{d(on)}	V _{GS} = 10V, V _{DD} = 50V, R _G = 3Ω, I _D = 3.5A	-	6.4	-	ns
Rise time	t _r		-	1.7	-	
Turn-off Time	t _{d(off)}		-	17.2	-	
Fall time	t _f		-	2.2	-	
Source-Drain Body Diode Characteristics						
Diode Forward Voltage ³	V _{SD}	I _S = 1A, V _{GS} = 0V	-	-	1.2	V
Continuous Source Current	I _S	-	-	-	3.7	A

Notes:

1. Repetitive rating, pulse width limited by junction temperature $T_{J(MAX)}=150^{\circ}\text{C}$
2. The data tested by surface mounted on a 1 inch² FR-4 board with 20Z copper, The value in any given application depends on the user's specific board design.
3. Pulse Test: Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
4. This value is guaranteed by design hence it is not included in the production test

Typical Characteristics

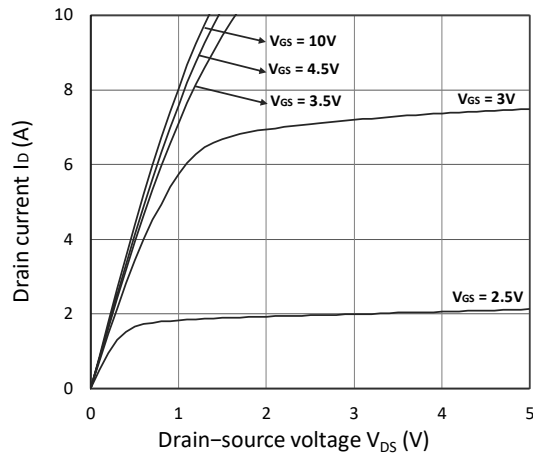


Figure 1. Output Characteristics

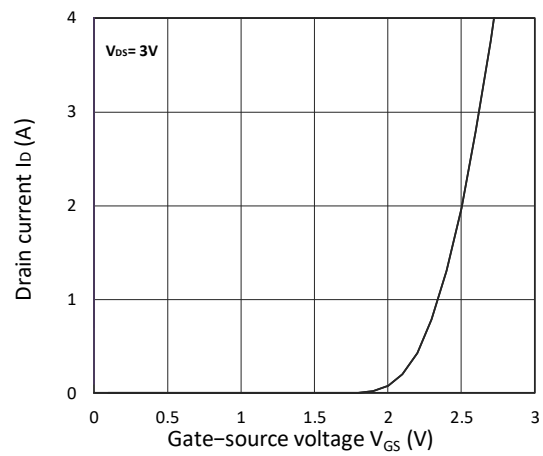


Figure 2. Transfer Characteristics

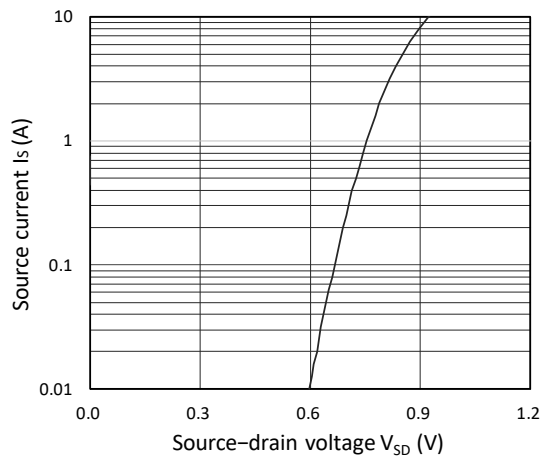
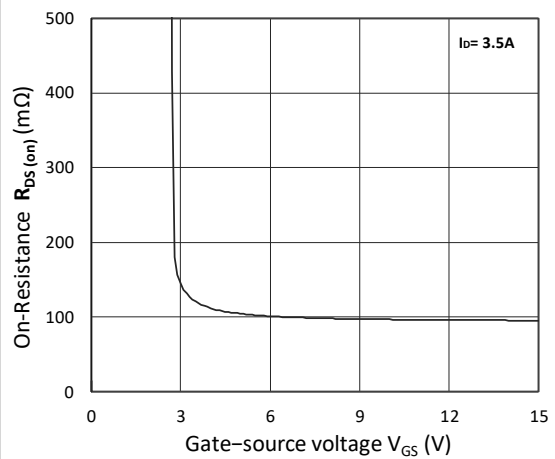
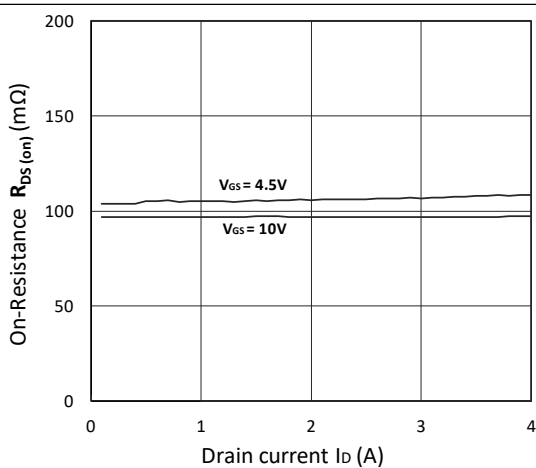
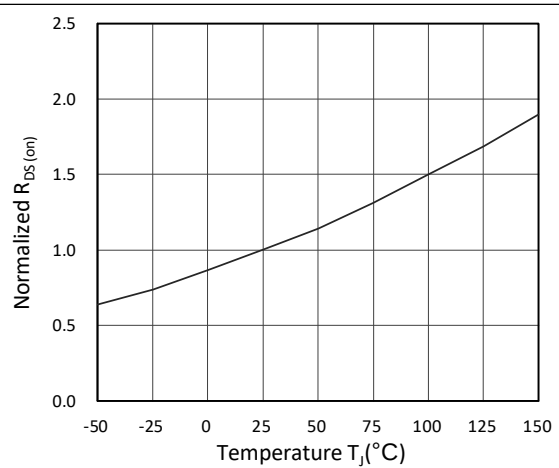


Figure 3. Forward Characteristics of Reverse

Figure 4. $R_{DS(on)}$ vs. V_{GS} Figure 5. $R_{DS(on)}$ vs. I_D Figure 6. Normalized $R_{DS(on)}$ vs. Temperature

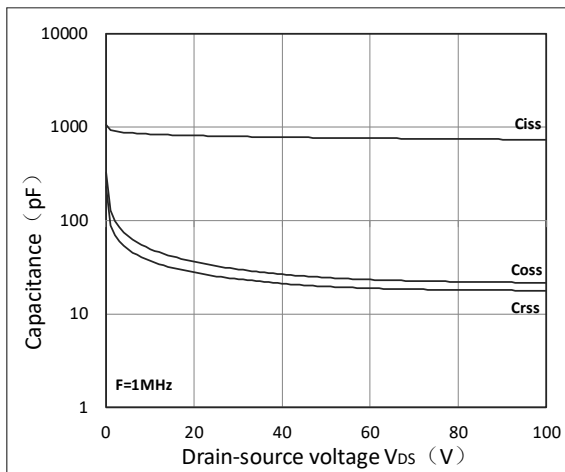


Figure 7. Capacitance Characteristics

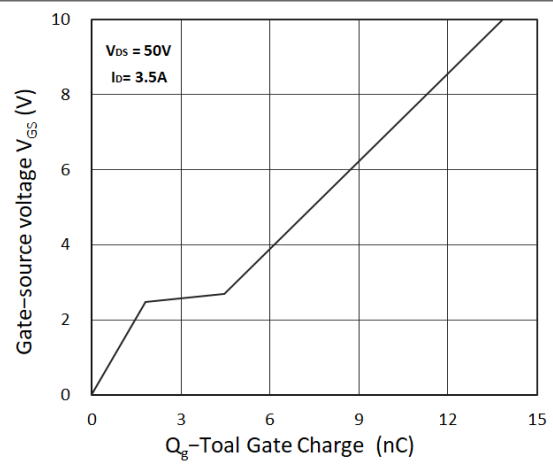
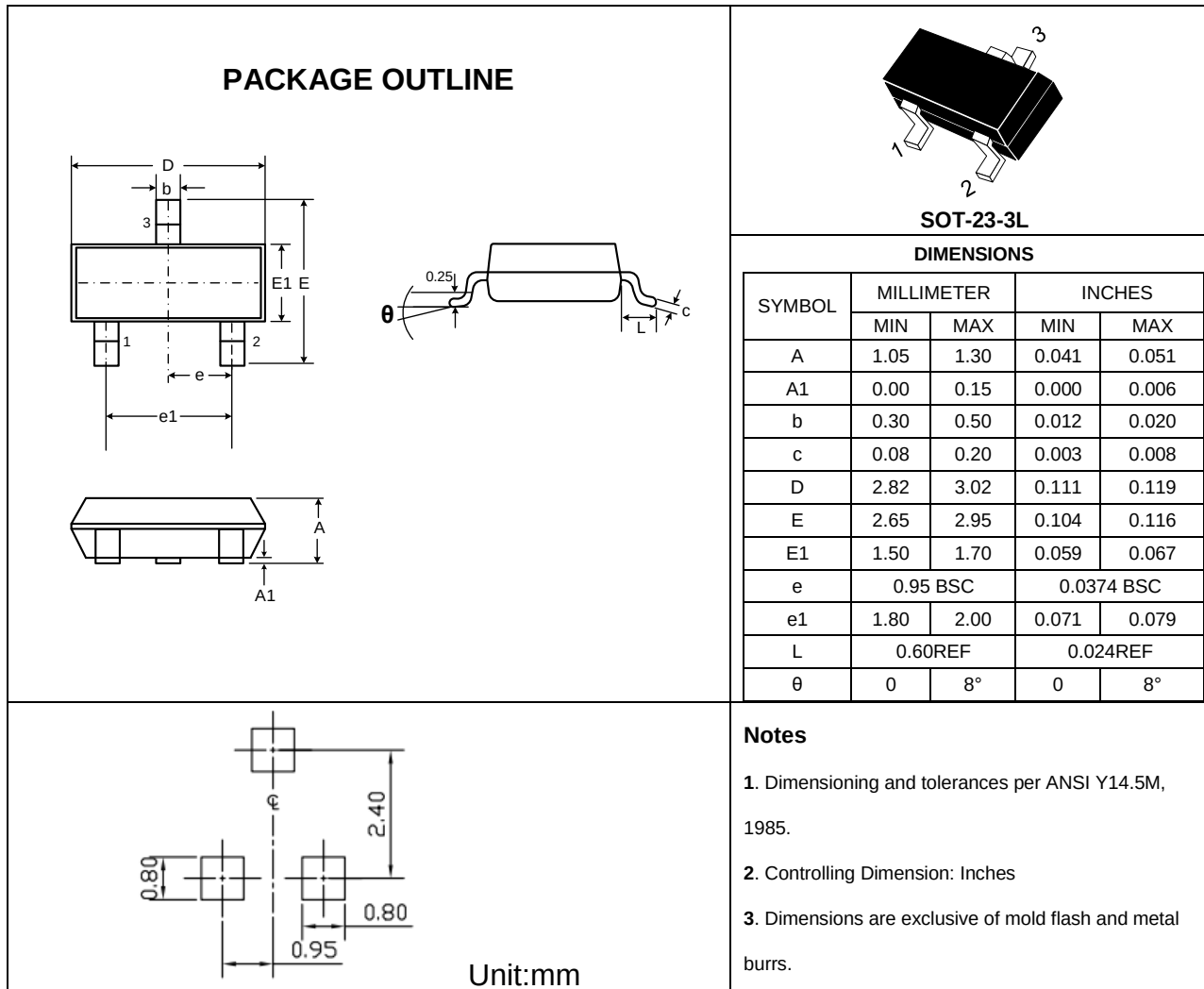
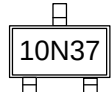


Figure 8. Gate Charge Characteristics

Outline Drawing – SOT-23-3L



Marking Codes

Part Number	WM10N37M2
Marking Code	

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

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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.