

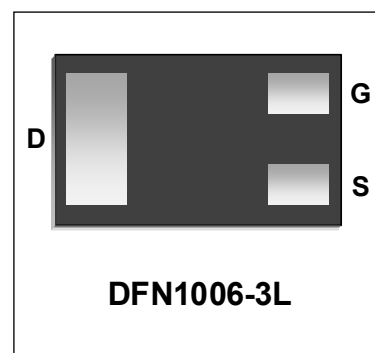
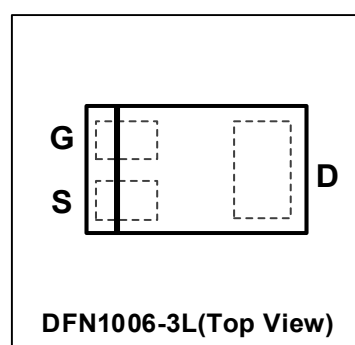
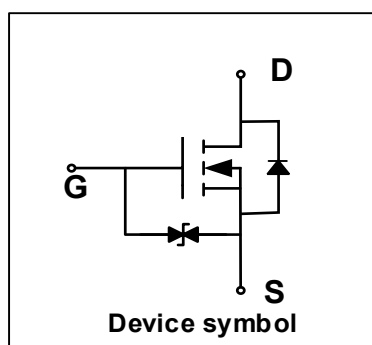
Features

- Way-on Small Signal MOSFETs
- $V_{DS} = 20V$, $I_D = 0.75A$
 $R_{DS(on)} < 0.32\Omega$ @ $V_{GS} = 4.5V$
 $R_{DS(on)} < 0.45\Omega$ @ $V_{GS} = 2.5V$
- Trench LV MOSFET Technology
- ESD Protected

Mechanical Characteristics

- DFN1006-3L 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}	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 ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	20	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =20V, V _{GS} = 0V	-	-	1	μA
Gate-body Leakage Current	I _{GSS}	V _{DS} = 0V, V _{GS} = ±10V	-	-	±20	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	0.32	Ω
		V _{GS} = 2.5V, I _D = 0.55A	-	0.26	0.45	
		V _{GS} = 1.8V, I _D = 0.45A	-	0.45	-	
Dynamic Characteristics ⁴						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 10V, f = 1MHz	-	53.5	-	pF
Output Capacitance	C _{oss}		-	10.5	-	
Reverse Transfer Capacitance	C _{rss}		-	7	-	
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
Turn-on Rise Time	t _r		-	4.8	-	
Turn-off Delay Time	t _{d(off)}		-	17.3	-	
Turn- off Fall Time	t _f		-	7.4	-	
Source-Drain Diode Characteristics						
Body Diode Voltage ³	V _{SD}	I _S =0.5A, V _{GS} = 0V	-	-	1.2	V
Continuous Source Current	I _S	-	-	-	0.75	A

Notes:

1. Repetitive rating, pulse width limited by junction temperature $T_{J(MAX)}=150^{\circ}\text{C}$.
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 $\leq 300\mu s$, duty cycle $\leq 2\%$.
4. This value is guaranteed by design hence it is not included in the production test.

Typical Characteristics

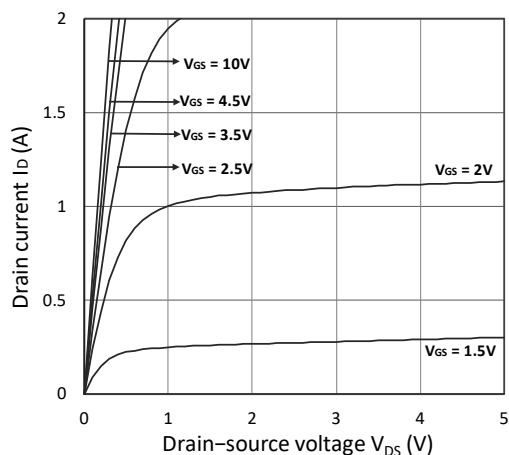


Figure 1. Output Characteristics

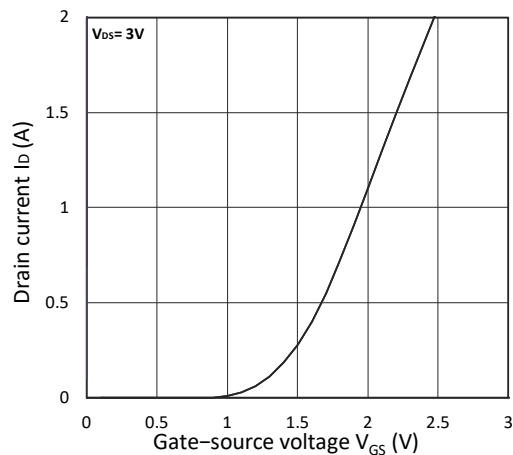


Figure 2. Transfer Characteristics

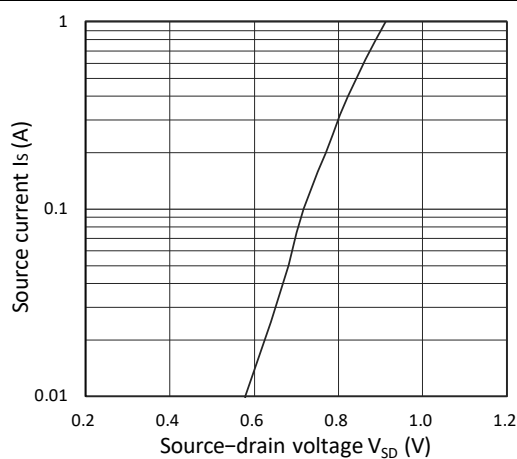


Figure 3. Forward Characteristics of Reverse

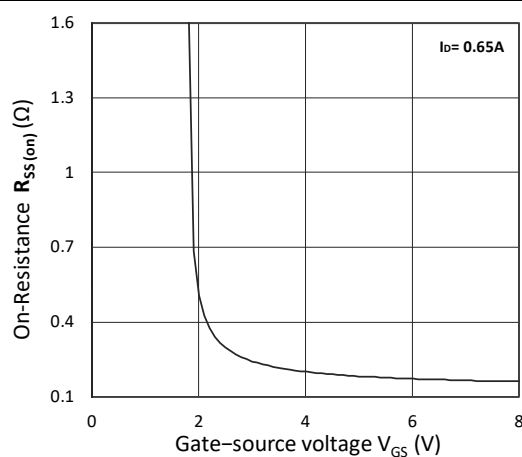
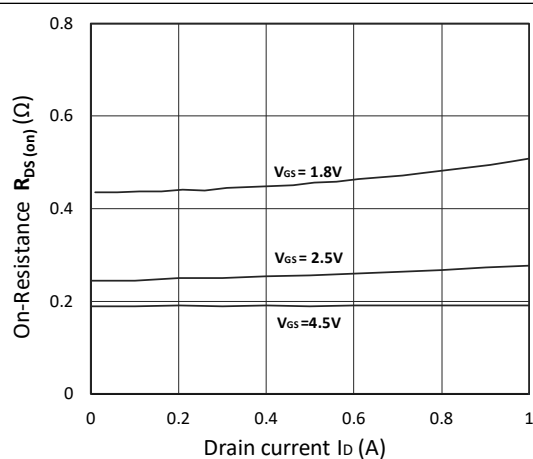
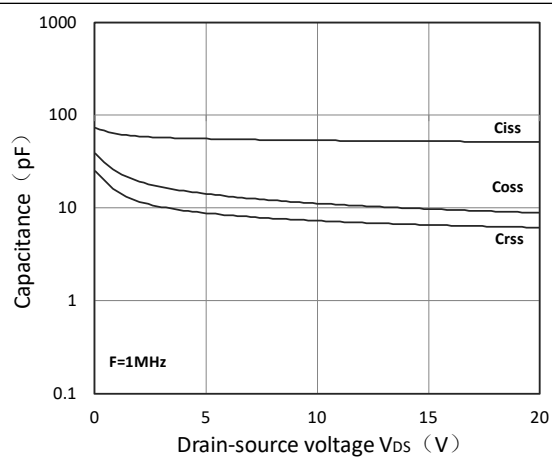
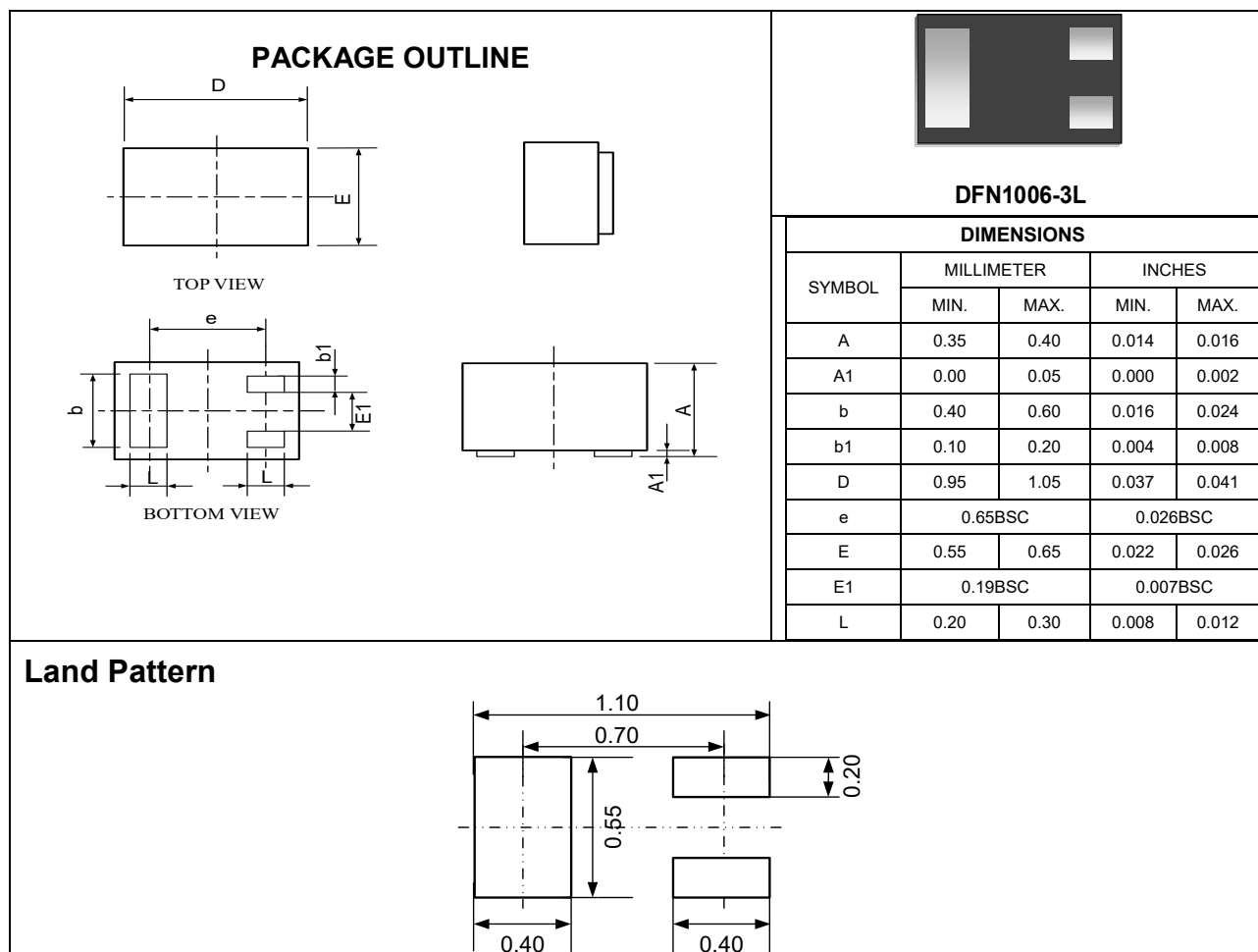
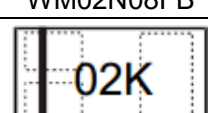
Figure 4. $R_{DS(ON)}$ vs. V_{GS} Figure 5. $R_{DS(ON)}$ vs. I_D 

Figure 6. Capacitance Characteristics

Outline Drawing – DFN1006-3L



Marking Codes

Part Number	WM02N08FB
Marking Code	

Package Information

Qty: 10k/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.