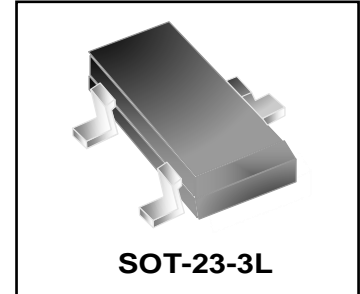


Features

- High dense cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability
- Fully Characterized Capacitance and Avalanche Voltage and Current



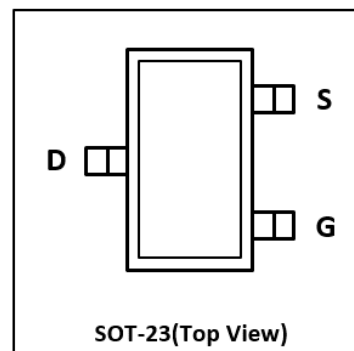
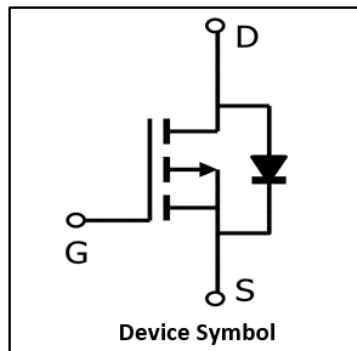
Mechanical Characteristics

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

Applications

- Load Switch for Portable Devices
- DC/DC Converter

Schematic & PIN Configuration



Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Drain-Source voltage	V_{DS}	-30	V
Gate-Source voltage	V_{GS}	± 12	
Continuous Drain Current	I_D	-4.2	A
Power Dissipation	P_D	450	mW
Thermal Resistance from Junction to Ambient ($t < 5s$)	$R_{\theta JA}$	313	$^{\circ}C/W$
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}C$

Electrical Characteristics (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Off characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-30	-	-	V
Gate-body Leakage current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 12V$	-	-	± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -24V, V_{GS} = 0V$	-	-	-1	μA
On characteristics						
Drain-Source On-Resistance ¹⁾	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -4.2A$	-	-	60	m Ω
		$V_{GS} = -4.5V, I_D = -4A$	-	-	70	m Ω
		$V_{GS} = -2.5V, I_D = -1A$	-	-	90	m Ω
Forward Trans conductance ¹⁾	g_{fs}	$V_{DS} = -5V, I_D = -5A$	7	-	-	S
Gate-Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-0.7	-	-1.3	V
Dynamic characteristics ²⁾						
Input Capacitance	C_{iss}	$V_{DS} = -15V, V_{GS} = 0V, f = 1MHz$	-	1050	-	pF
Output Capacitance	C_{oss}		-	127	-	
Reverse Transfer Capacitance	C_{rss}		-	85	-	
Switching characteristics ²⁾						
Turn-On Delay Time	$t_{d(on)}$	$V_{GS} = -10V, V_{DS} = -15V, RL = 3.6\Omega, RGEN = 6\Omega$	-	-	6.5	ns
Rise Time	t_r		-	-	3.5	
Turn-Off Delay Time	$t_{d(off)}$		-	-	40	
Fall Time	t_f		-	-	13	
Drain-source diode characteristics and maximum ratings						
Diode forward voltage ¹⁾	V_{SD}	$I_S = -1A, V_{GS} = 0V$	-	-	-1	V

Notes:

1. Pulse Test: Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
2. These parameters have no way to verify.

Typical Characteristics

Figure 1. Output Characteristics

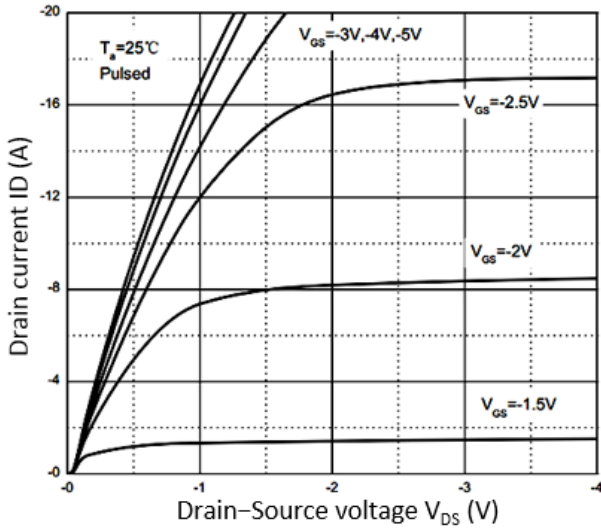


Figure 2. Transfer Characteristics

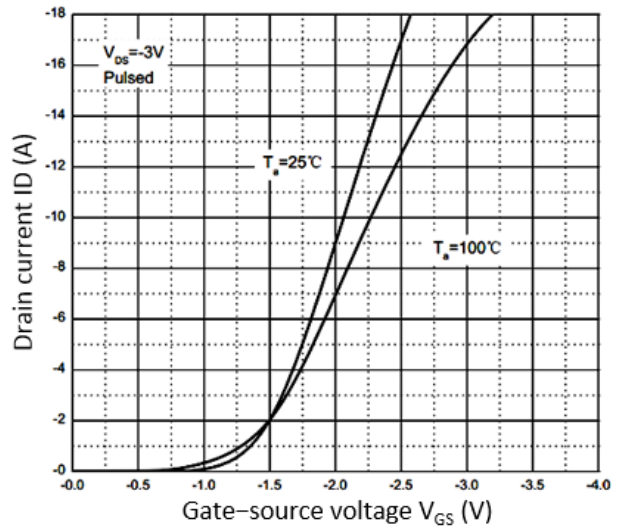


Figure 3. $R_{DS(on)}$ vs. Drain Current

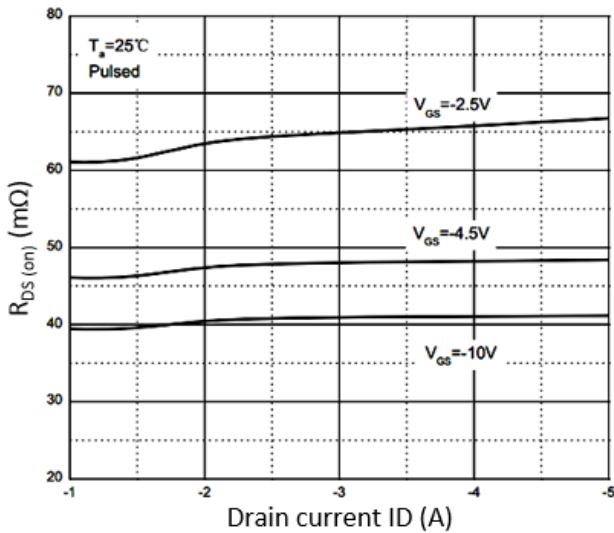


Figure 4. $R_{DS(on)}$ vs. V_{GS}

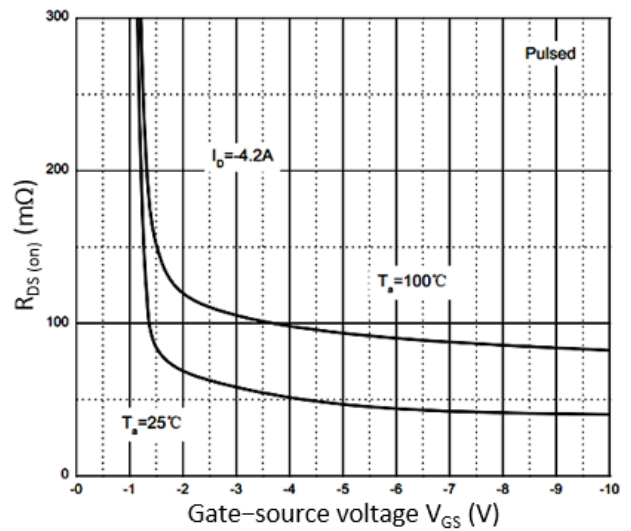


Figure 5. Source Current vs. V_{SD}

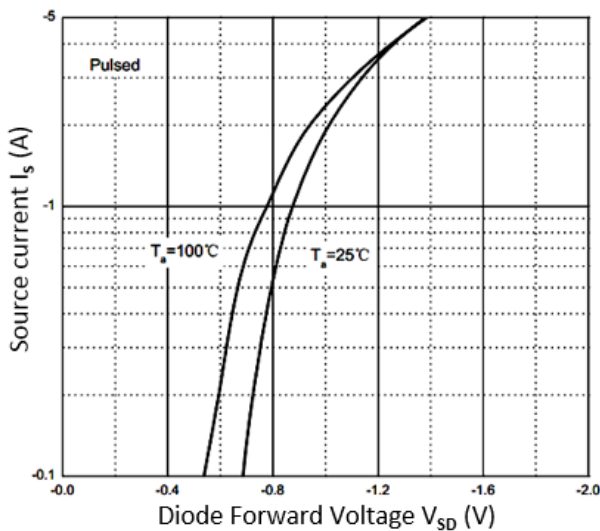
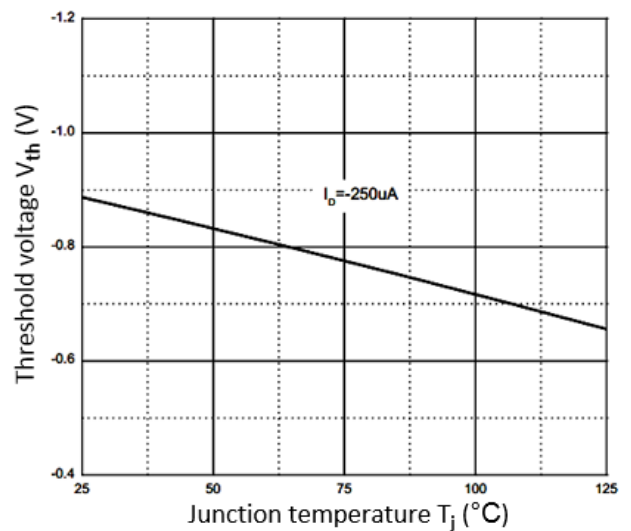
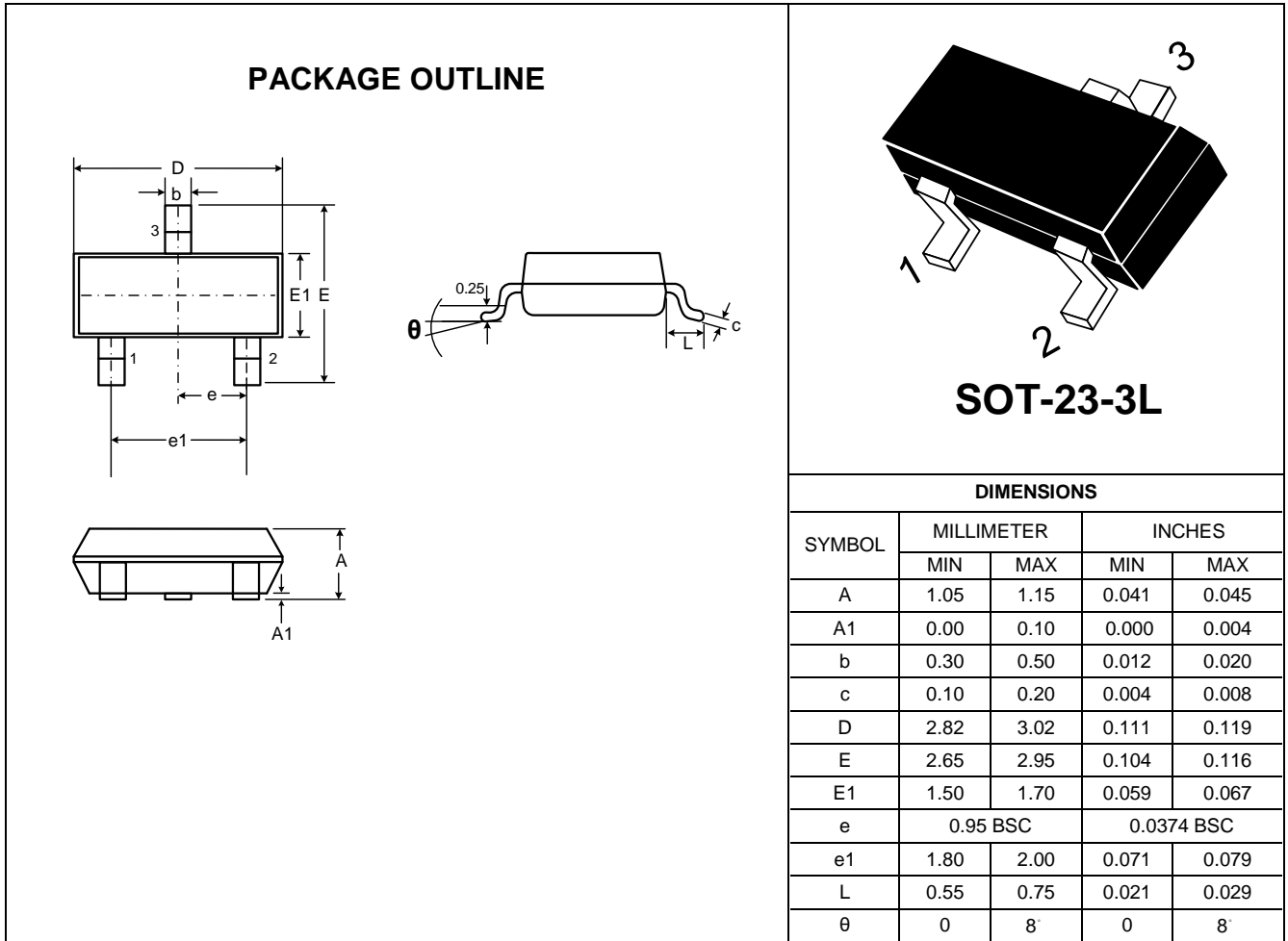


Figure 6. Threshold Voltage vs. Temperature



Outline Drawing – SOT-23-3L



Marking Codes

Part Number	WM03P42M2
Marking Code	3401

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

CYG WAYON CIRCUIT PROTECTION CO., LTD.

No.1001, Shiwan (7) Road, Pudong District, Shanghai, P.R.China.201202

Tel: 86-21-68969993 Fax: 86-21-50757680 Email: market@way-on.com

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

For additional information, please contact your local Sales Representative.

CYWAYON® 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.