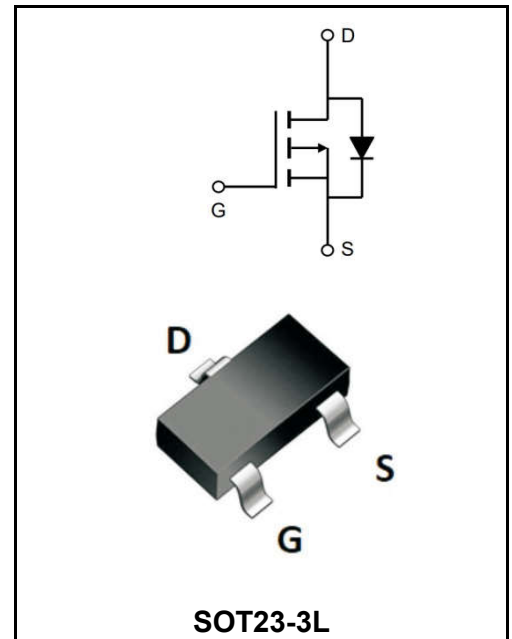


30V P-CHANNEL ENHANCEMENT MODE MOSFET

MAIN CHARACTERISTICS

I_D	-4.8A
V_{DSS}	-30V
R_{DS(on)-MAX(@V_{GS}=-10V)}	<65mΩ
R_{DS(on)-MAX(@V_{GS}=-4.5V)}	<75mΩ



Marking Code	
YFW3401MI	X1HV

Features

- ◆High dense cell design for extremely low RDS(on).
- ◆Exceptional on-resistance and maximum DC current capability.
- ◆Load/Power Switching.
- ◆Interfacing Switching

Mechanical Data

- ◆SOT23-3L Small Outline Plastic Package.
- ◆Epoxy UL: 94V-0.
- ◆Mounting Position: Any.

Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Symbols	Value	Units
Drain-Source Voltage	V_{DS}	-30	V
Gate - Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	-4.8	A
Power Dissipation	P_D	450	mW
Thermal Resistance Junction-Ambient ¹	R_{θJA}	313	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-50 to +150	°C

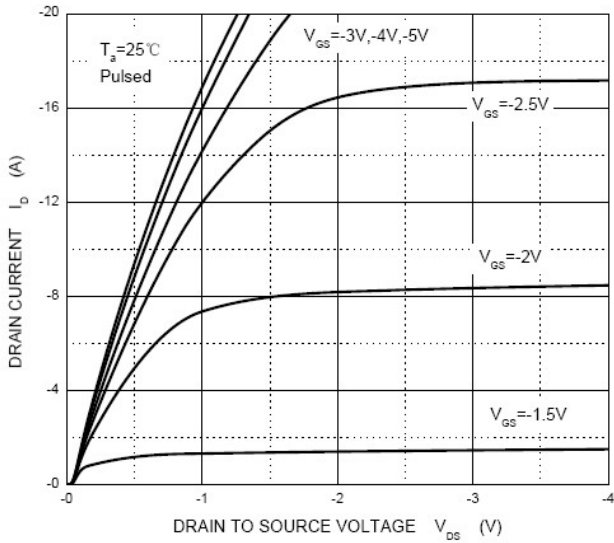
Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=-250\mu A$	V(BR)DSS	-30	-	-	V
Zero Gate Voltage Drain Current	$V_{DS}=-24V, V_{GS}=0V$	I_{DSS}	-	-	-1	μA
Gate to Body Leakage Current	$V_{DS}=\pm 12V, V_{GS}=0V$	I_{GSS}	-	-	±100	nA
Static Drain-Source on-Resistance (note1)	$V_{GS}=-10V, I_D=-4.8A$	R_{DS(ON)}	-	-	65	mΩ
	$V_{GS}=-4.5V, I_D=-4A$		-	-	75	
	$V_{GS}=-2.5V, I_D=-1A$		-	-	90	
Forward trans conductance	$V_{DS}=-5V, I_D=-5A$	g_{fs}	7	-	-	S
Gate-Threshold voltage*	$V_{DS}=V_{GS}, I_D=-250\mu A$	V_{GS(th)}	-0.7	-	-1.3	V
Input Capacitance	$V_{DS}=-15V$ $V_{GS}=0V$ $f=1MHz$	C_{iss}	-	1050	-	μF
Output Capacitance		C_{oss}	-	127	-	
Reverse Transfer Capacitance		C_{rss}	-	85	-	
Turn-on delay time	$V_{GS}=-10V$ $R_L=3.6\Omega$ $V_{DS}=-15V$ $R_{GEN}=6\Omega$	t_{d(on)}	-	-	6.5	ns
Turn-on Rise Time		T_r	-	-	3.5	
Turn-Off Delay Time		t_{d(OFF)}	-	-	40	
Turn-Off Fall Time		t_f	-	-	13	
Diode forward voltage(note 1)	$V_{GS}=0V, I_S=-1A$	V_{SD}	-	-	-1.0	V

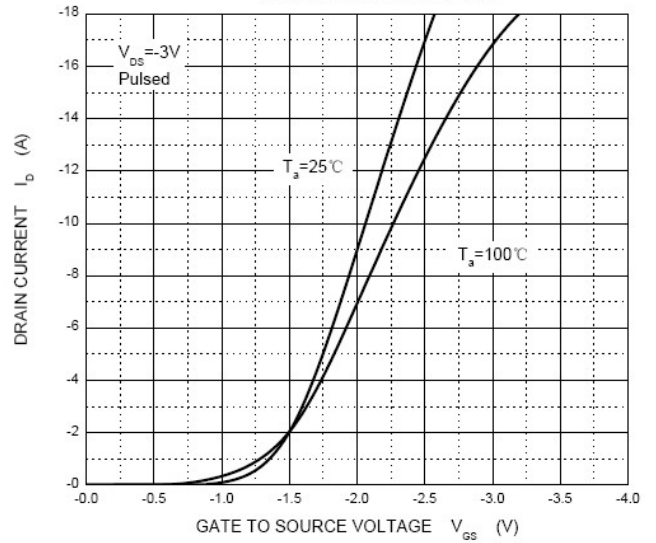
Notes: 1. Pulse Test: Pulse Width ≤300us, Duty Cycle≤2%.

Typical characteristics

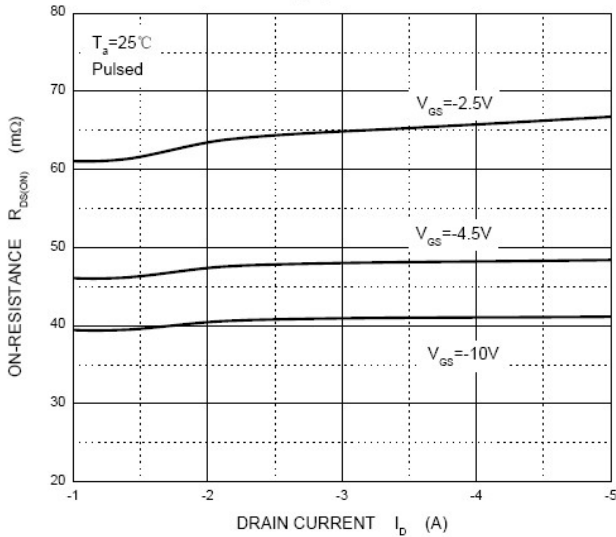
Output Characteristics



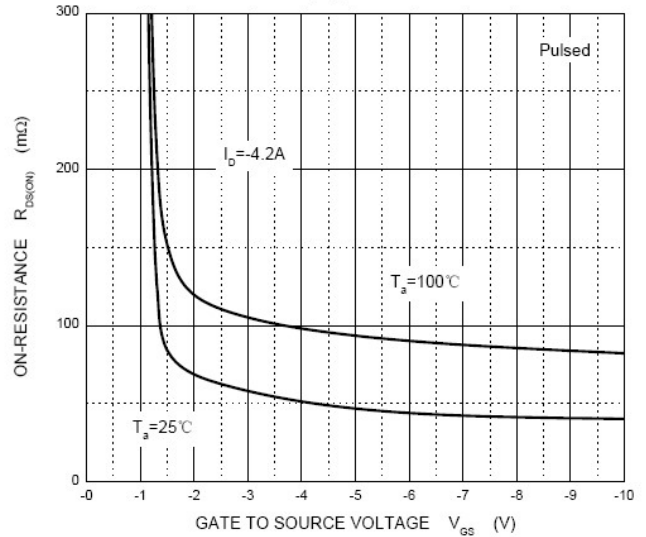
Transfer Characteristics



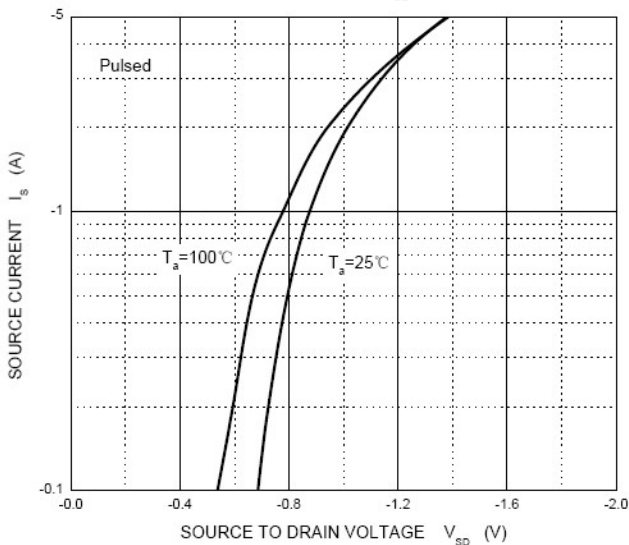
$R_{DS(ON)}$ — I_D



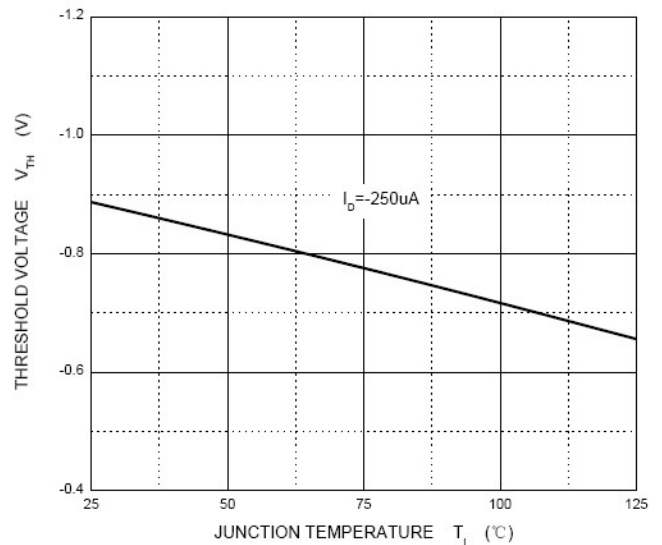
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



Threshold Voltage



Ordering information

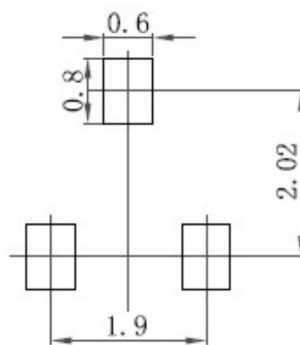
Package	Packing Description	Base Quantity	Packing Quantity
SOT23-3L	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT23-3L

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	1.05	1.25	41	49.2
A1	0.10		3.93	
A2	1.05	1.15	41	45
b	0.30	0.50	12	20
c	0.10	0.20	3.93	7.9
D	2.82	3.02	111	119
E	1.50	1.70	59	67
E1	2.65	2.95	104	116
e	0.95		37.4	
e1	1.80	2.00	71	78
L	0.30	0.066	12	26
Θ	8°			

The recommended mounting pad size



Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.